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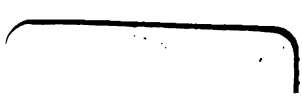

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THE WORLD A SPIRITUAL SYSTEM

AN OUTLINE OF METAPHYSICS

BY

JAMES H. SNOWDEN, D.D., LL.D.

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To

ALEXANDER T. ORMOND, PH.D., LL.D.

PROFESSOR OF PHILOSOPHY IN PRINCETON UNIVERSITY

IN APPRECIATION OF

HIS DISTINGUISHED SERVICES IN PHILOSOPHY

AND IN MEMORY OF

DAYS OF DELIGHTFUL FELLOWSHIP ON THESE HIGH THEMES

THIS BOOK IS RESPECTFULLY

DEDICATED

PREFACE

METAPHYSICS has been defined as "that, of which those who listen understand nothing, and which he who speaks does not himself understand"; and a metaphysician has been declared to be a "blind man looking on a dark night for a black cat that isn't there!" These extreme statements probably represent the view many persons entertain of this field of thought. It appears to them to be a region of cloud and smoke, conflict and confusion, where men are blindly groping about and "ignorant armies clash by night." They hear the distant din and occasionally see its dust, but are uncertain as to what it is all about, or whether it has any real meaning.

This chaos, however, is more apparent than real, and it requires but slight acquaintance with metaphysics to see that it is a world of order and has an object in view; in fact, so far from being confusion worse confounded, metaphysics is distinctly an effort to escape intellectual confusion and reach a clear and consistent view of the world. It is probable that there are many persons, students, professional men, teachers, and general readers, that have given little special study to the subject, who

would be glad to be led into this world along an elementary and plain path. It is in the hope of meeting this want that this book is offered to such readers. It does not attempt to cover the whole field, and scarcely touches some of its deeper problems, but it endeavors to give an outline of metaphysics from the idealistic point of view. It especially seeks to be constructive and work out a general theory of the world as a spiritual system. The popular aim of the book explains its elementary form, and its avoidance, as far as possible, of technical terms.

The trend of metaphysics has long been in the direction of idealism, but in recent years this system has assumed popular forms, true or perverted. It is now out on the street and in the air, and this creates an occasion for a plain exposition of the subject. Theology is also being rewritten in the light of idealistic or monistic philosophy, and this book endeavors to apply idealism in the field of religion and life. Metaphysics must submit to the pragmatic test, and at this point idealism wins large vindication.

The main object of this book, however, is not to make converts to the theory it presents. The metaphysician as a rule is chiefly intent on seeing and stating truth, and is less concerned in controversy and converts. He knows he can only catch his own glimpse of reality and that ultimate truth is infinitely wider and deeper than he can see; therefore, he strains his vision to discern what he can of the great world, and then is content to

make report of his quest and let others search and see for themselves. In the last result every one must be his own metaphysician, and we can do little more than present our varying views and get what help we can from one another. Yet while this book is idealistic, it endeavors to state other views impartially, and it may still serve as an introduction to the general subject.

WASHINGTON, PA.

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In Him we live and move and have our being.

— PAUL.

Take all in a word: the truth in God's breast
Lies trace for trace upon ours impressed:
Though he is so bright and we so dim,
We are made in his image to witness him.

— BROWNING.

There is an inmost center in us all,
Where truth abides in fullness; and around,
Wall upon wall, the gross flesh hems it in,
This perfect, clear perception — which is truth.
A baffling and perverting carnal mesh
Binds it, and makes all error: and, to know,
Rather consists in opening out a way
Whence the imprisoned splendor may escape,
Than in effecting entry for a light
Supposed to be without. Watch narrowly
The demonstration of a truth, its birth,
And you trace back the effluence to its spring
And source within us; where broods radiance vast,
To be elicited ray by ray.

— BROWNING.

Dark is the world to thee: thyself art the reason why;
For is He not all but that which has power to feel 'I am I'?

Speak to Him thou, for He hears, and Spirit with Spirit can meet —
Closer is He than breathing, and nearer than hands and feet.

— TENNYSON.

Our little systems have their day;
They have their day and cease to be:
They are but broken lights of thee,
And thou, O Lord, art more than they.

Let knowledge grow from more to more,
But more of reverence in us dwell;
That mind and soul, according well,
May make one music as before,

But vaster.

— TENNYSON.

THE WORLD A SPIRITUAL SYSTEM

CHAPTER I

THE NATURE OF METAPHYSICS

1. The Definition of Metaphysics

Metaphysics is the science of being. To understand this definition, which compresses a vast system of thought into a single, short sentence, we must unfold its meaning. There are many sciences which deal with limited areas or aspects of being, each special science investigating and systematizing the facts and laws of its own field. Thus astronomy studies the heavenly bodies, determining their sizes, distances, orbits, motions, weights, temperature, and composition, with a glance backward into their origin and forward into their destiny. At the other extreme, molecular physics studies molecules and atoms, endeavoring to measure these minute masses and to resolve the atoms into swarms of electrons and possibly to dissolve the electrons into ether whirls or centers of electricity or energy. In a similar way, botany studies plants, and zoölogy studies animals. Biology strikes deeper and enters the region of life as it is exhibited in both plants

and animals. Psychology goes deeper still, and penetrates the world of mind as it is found in man, seeking accurately to ascertain and analyze mental facts and to derive their laws. Ethics studies the special field of mental life manifested in moral character and conduct. Theology studies God, seeking to discover the nature of his being and his relations to man, especially in the practical field of religion. Thus each of the hundred or more sciences investigates its own field. Yet while no science attempts to go outside its proper limits, all sciences overlap one another at their mutual boundaries, and are together interrelated and form one continuous and harmonious system of truth.

Some of these sciences include several kindred fields or subordinate sciences. Thus physics investigates matter in the mass, whether the mass be an astronomical sun or a chemical atom. Biology studies life in all its myriad forms, and thus freely crosses the line between botany and zoölogy; it is concerned with the principles that are common to both these fields. Psychology, while it is primarily concerned with mental life, yet cannot keep from invading the body and studying the interrelations of the two widely distinct fields of mind and matter. Sociology, with its shadowy outlines and vague contents, endeavors to grasp a wide field of diverse facts embraced within economics, ethics, politics, sanitation, and other sciences, and is thus concerned with the structural elements of society and the principles that are common to these many subordinate sciences. Theology has an

immensely wide reach, endeavoring to lay hold of the nature of God and of man in themselves and in their mutual relations.

It will be observed that the wider the field of a science is, the fewer are its specific facts and principles; the more extensive it is, the less intensive it is. Botany has a narrower but a richer field than biology, for all the vital facts within its field belong to it, whereas biology is concerned only with those that are common to botany and zoölogy. As a science rises above and includes within its range several sciences, it leaves behind it all but that which is common to them; and, therefore, the wider the circle it covers, the less rich it is in details and the more it is reduced to general principles. At last it may become only a skeleton of principle denuded of all flesh.

This principle carried to its logical limit gives us metaphysics. Metaphysics is the universal science which seeks to grasp the whole field of being, the common ground of all the special sciences. As biology takes the many elements of botany and the many elements of zoölogy and picks out the relatively few that are common to both and drops all others out of view, so metaphysics endeavors to dissect out the few principles or the one principle that is common to all fields. It proceeds on the assumption that there is one mode, or, at most, two or several modes, of being back of all the myriad forms of reality which we see in the world; and its grand endeavor is to penetrate to this ultimate principle and discover its nature and laws; to rise above all

specific differences in the sciences and construct one comprehensive science.

Metaphysics thus has no boundary lines such as limit the special sciences. Wherever reality manifests itself, there lies its field. It sends out a decree that all the world shall be taxed in its interest. Yet it is not primarily concerned with the wealth of details that constitute the richness of a specific field of fact, but only with the underlying skeleton of principle that is its framework in common with all other fields. In particular, metaphysics crosses that deepest line of division that cleaves the world, the gulf between mind and matter. These two fields that seem so widely sundered belong equally to its domain, and its chief concern is to determine their mutual relations, and especially to discover whether they are really diverse or are only two aspects or modes of the same fundamental reality. Since the Creator falls within the field of being as truly as any creature, metaphysics includes God in its view and endeavors to reach his nature and his relations to the whole of being. In accordance with the principle that the wider the field of a science is, the fewer are its elements, metaphysics has the least wealth of detail and is reduced to the barest skeleton of being. When it finds one principle or element that underlies and explains the universe, it attains its goal.[1]

[1] Philosophy is the general science of ultimate principles, and divides into the two branches of epistemology, which investigates the nature and validity of knowledge, and of metaphysics, which investigates the nature of ultimate reality.

But having reached this goal of a unitary principle or germ of ultimate reality, the metaphysician at once proceeds to evolve it again into the universe. He is not content with a metaphysical skeleton, but reclothes it with flesh and blood and makes his world full-rounded and warm with life: only his new world is now reconstructed on metaphysical lines and his central luminous principle is 'the master light of all his seeing.'

2. The Method of Metaphysics

The search for truth is not a haphazard adventure, but a systematic process. The several sciences, therefore, for carrying on their investigations have various rules, methods, and instruments, which experience has devised and found necessary and efficient for the best work. Some sciences, such as astronomy and chemistry, have an elaborate outfit of instruments, and others, such as mathematics, have a complicated system of technical terms and symbols. The fundamental methods of all sciences, however, are the same. These are the mental processes involved in reaching reality in any field, such as accurate observation, trained judgment, correct reasoning, constructive imagination, and experimental test and proof. When these operations are properly conducted, the truth is likely to be attained, though the regulative rules and instrumental helps may be few or imperfect. But if the mental processes are loose and illogical, the whole structure reared on them may be unsound, though it may present an imposing appearance of learned research.

Metaphysics has no observatory or laboratory, no instruments and few rules. It carries on its work almost wholly by mental processes; its workshop is within the mind. It does not follow from this, however, that it has no method and is loose and lawless in its ways of working. It is sometimes thought that metaphysics is not a true science, but is simply a subjective maze and mist of individual speculations without principle or system; that every metaphysician spins his own web out of his own brain according to his own wild will. This is a mistake. Metaphysics, like any other science, is an attempt to systematize our knowledge of a certain field; to clear it of errors and to clarify and arrange our conceptions of it so that they will reflect and fit reality; and so far from being loose and vague in its methods, it seeks to reason with the greatest care and rigor, to question and cross-question every fact and theory with the most painstaking thoroughness and pitiless impartiality, and to spare no assumption or prejudice or appearance, however self-evident it may claim to be or however it may be supported by authority or consecrated by tradition. It has therefore been defined by Professor William James as simply "an unusually obstinate attempt to think clearly and consistently." Metaphysics has a passion for truth, and its one fundamental method is the most strenuous reasoning.

This reasoning, however, is not carried on in a secret chamber of the mind or up in the air, remote from the reasonings and experiences of everyday life. The meta-

physician is sometimes looked upon as a kind of mental wizard who is practicing some hidden art, and the very name to some people has an uncanny sound. But the philosopher has the same faculties as other men, and has no magic or patented process for reaching truth. His logical operations are the same as those used not only in other sciences, but in politics and business and all the affairs of life; in fact, the metaphysician does not differ in his logic from "the man on the street," except that he is more careful. All his reasonings are carried on out in the open where they can be seen and known of all men. The constant test of metaphysics is experience, the common experience of the world. In fact, as we shall see, experience is the very stuff it handles and is endeavoring to systematize and explain. And every kind of experience is given a voice in shaping this explanation, whether of mind or heart, body or world, soul or society. The metaphysician exclaims, with the Roman actor, "I am a man, and nothing pertaining to man is foreign to me." He has been charged with excessive intellectualism as though his interpretation of reality were purely the abstract output of a cold logical machine, but he is deeply immersed in the world, and his results are the full-orbed expression of his total experience.

There is one method or instrument of investigation in metaphysics so important as to deserve special mention. This is the method of self-consistency, or its opposite, contradiction. Metaphysics assumes, as we shall see, the unity and harmony of all truth. Coherence in the

results of our thinking is therefore a mark of sound logic, and inconsistency is infallible proof of error. The metaphysician never stops with an assumption or principle until he has traced it through all its consequences to its final end; and if at any point it fails to fit in nicely and smoothly with accepted knowledge, he experiences a jar that warns him the delicate organism of truth is out of gear or balance, and he hastens to search for and correct the maladjustment. Metaphysics abhors a contradiction, as it used to be said that nature abhors a vacuum, and it cannot rest until it has wrought truth out into a universal and harmonious system.

3. The Assumptions of Metaphysics

Every science starts with a large stock of assumptions. It can investigate and establish only the facts and principles contained in its own limited field and must assume the generally accepted results of other fields. Geology accepts and uses the results of physics, chemistry, biology, and other sciences. Ethics accepts the results of psychology, psychology accepts physiology, physiology accepts chemistry, chemistry accepts physics, and thus every science is built upon foundations of faith. The proved principles of one science become the assumptions of the next.

Metaphysics as the universal science in one sense starts with the largest stock of assumptions, as it accepts and uses the results of all other sciences. But in another sense it starts with the fewest assumptions, for its

aim is to reach the ultimate principles of reality, and therefore it must sift and search the postulates of all other sciences and have as few as possible of its own. Assumptions are its dislike, if not its abhorrence, and if possible it would have none of them. This, however, cannot be. Human reasoning is a process that always begins in the middle of things, because it can never get back of its own first principles. It must have something to stand on before it can take its first step, and to renounce all assumptions would be to cut the ground from under its own feet. An assumption is an act of faith rather than of logic, and trust is older than reason in human experience, as in the evolution of life the heart is older than the brain. We must trust something before we can know anything, and the metaphysician cannot escape this necessity. He, too, is a man of faith and must walk by faith, at least in the first steps of his metaphysical journey. Nevertheless, he does well to be as sparing and skeptical of assumptions as he can. It is his business to be suspicious of them and to "prove the spirits, whether they are of" the truth, "because many false" assumptions "are gone out into the world." Rigorous reasoning is his method, and everything must submit to the severest search and test.

Yet there are a few principles that the metaphysician must assume, for without them he cannot even begin to reason. In common with all other men he sees and accepts the axioms of mathematics as self-evident truths. That things equal to the same thing are equal to one

another, that a finite whole is greater than any of its parts, and so on, are found in the metaphysician's stock of assumptions. These things cannot be proved in the sense that they can be analyzed and demonstrated by a process of reasoning, for they are immediately perceived as unanalyzable truths, and no reasoning about them can make them any clearer or more certain. Of a similar nature is the principle that every change of being must have a cause. While all our experience confirms this, yet it is not derived from experience, but is a logical necessity of thought. We cannot think it away, or conceive a change without thinking of it as being effected by some cause. Mental changes are quite as subject to this principle as physical changes, and it is a universal law of being. If there were no such law, there could be no order in the system of being, and all science would be impossible.

There are two other assumptions of metaphysics that are of special importance. One is the trustworthiness of our mental faculties and processes. The human mind is constituted to know truth and to discover truth. Of course it is subject in all its processes to error, as the swarms of errors that have attended all its thinking abundantly prove. But it can test its processes, constantly compare its results with experience, clear itself of errors, and thus ever approximate more closely to reality. The attempt to reach the truth is often a long and hard battle, but it is a battle that can be won. It may not be the absolute truth that is reached, it may be rela-

tive to our faculties, it may be truth seen through a glass darkly, but still it is truth. This principle, then, must be assumed in the beginning of all our reasoning: without this assumption we could not prove or disprove anything, for all our results would be vitiated by the constitutional untrustworthiness of the mind itself.

The other important assumption is the unity and harmony of all reality. Being breaks into infinite variety, yet amidst all its varied forms it maintains its own inner cohesion and harmony. However diverse and apparently antagonistic its manifestations are, we must believe that they all fit together with absolute nicety and that there are nowhere any faults or gaps, any misfit joints or open seams, that would break or mar the perfect continuity and harmony of the system. However persistent and pugnacious, formidable and alarming the appearances, there must be no real contradiction or inconsistency in the realm of being. All its radii must run to the same center, all its manifold manifestations must melt into one unity. Now we cannot prove this, certainly we cannot wait to prove it before we begin our reasonings, perhaps we never can prove it. And yet we must assume it, for without such assumption all science again becomes impossible. Science is simply a transcript of the order that reigns in the realm of being, and if there be no such order, there can be no science. Our progress in the growth of knowledge may confirm this assumption of the unity of truth, but we must start with it as a postulate, and may never reach the point where this

faith becomes knowledge. Yet faith is not necessarily a weaker kind of belief than reasoned knowledge, but may be the surest of our convictions.

And so metaphysics is built on trust, and its first word is faith. But having accepted these few, primal, necessary assumptions of thought, it suddenly grows skeptical and refuses to accept any more. Having taken these first steps by faith, it henceforth walks by sight.

4. The Spirit and Object of Metaphysics

The spirit in which and the object for which a science is prosecuted are important matters. Metaphysics should first of all conduct its reasonings in a truth-loving, truth-seeking spirit. This spirit should characterize all science, but it should especially mark metaphysics. Its aim is to reach ultimate truth, and its only hope of success is to clear its eyes of all prejudice and passion and look with unclouded vision. It should therefore be very honest and candid, patient and persistent, in its search, with an eye single for the truth. Tradition and authority can have little place in its processes. Prejudice and partisanship should play no part in its inquiries, and its one pursuit and passion should be to reach reality.

And, therefore, the metaphysician may well be characterized by the spirit of humility. Presumption and pride incapacitate him for that calm and clear thought that is his only means of seeing truth. Dogmatism, offensive in all men, is especially and unpardonably

obnoxious in him. Occasionally there has been a metaphysician, like Schopenhauer, who has been obsessed of a high and mighty dogmatism that would settle all the problems of the universe by its own *ipse dixit* and then would ruthlessly impose its decrees on all men. Such a spirit is not likely to find the truth, for it is so possessed of its own preconceived opinions that it is blind to everything else. When the light that is in the metaphysician is darkness, how great is that darkness! Truth loves to dwell in a humble heart, and a cautious and candid mind is more likely to find it. In attempting to walk the dizzy heights of metaphysical speculation, we need to walk humbly and take heed lest we fall. At best we can know only in part, and we must not assume that we do or can know all. The true metaphysician has little of the aggressive spirit and is not anxious to make converts. It is enough for him to go out into the wilderness of speculation and endeavor to catch some glimpse of reality for himself. On coming back he is willing to make report of what he has seen, but he does not wish others to accept his report on his authority; at most he only desires to disclose the vision that has illuminated the world for him, and his invitation is, Come and see.

The object of metaphysics is doubtless a puzzle to many minds. The practical man judges things by their practical results, and at the end of every enterprise or adventure he looks for material profit. It must be confessed that, judged by this standard, metaphysics has nothing to show. It never invents a magic machine,

discovers a new mine of wealth, or affects the price of stocks in the market. Yet it may have all the higher aim and be worth all the more because it rises above these things. Man's life consisteth not in the abundance of the things which he possesseth; his real life is found, not in outer, but in inner, wealth. Even physical science is most worthy of our esteem and is most successful when it is dissociated from any thought of gain and seeks truth for its own sake. The most splendid discoveries of science, even those which afterward have showered the greatest and most abundant material blessings on the world, have been the work of men who, like Agassiz, had "no time to make money." It is one of the noblest impulses of the soul that impels it to know and to set no bounds to its knowing; to seek truth for its own sake, with no desire or thought of material reward. This disinterested love of truth reaches its purest and intensest degree in metaphysics, which is at the farthest possible remove from the manufactory and the market, and is closest to the sun of truth and the stars of eternity.

But even from the practical point of view, metaphysics is not without justification. Every instinct points to some deep need. The soul has an instinct for knowledge that cannot rest or be satisfied until it has strained itself to the utmost to pierce the mystery of existence; and all such knowledge fits and arms it for better living. Any truth once acquired is so much fine capital added to the soul's wealth; is so much expansion and enrichment of the soul's life; is a higher level whence it

can look out upon a wider horizon and climb to still loftier summits. Metaphysical speculation, in so far as it reaches truth, takes the soul so much nearer the center and total significance of all reality, and thereby brings the largest and richest enhancement to its wealth, lifts it to the highest peak, and gives it the broadest and most splendid view of the world. Metaphysics feeds faith and shows it that life is something rich and grand and infinitely worth living. While it is true that philosophy has in some instances reached skeptical results and bred a pessimistic spirit, yet its general history has been that it has laid foundations on which to build a solid structure of life, reared altars of faith and worship, and shed an optimistic brightness over the world. The human mind would prove itself unworthy of its great powers if it did not attempt to climb the loftiest Alp of thought, and the world would have been less rich and strong if metaphysics had not come to attempt this achievement. And as the Alps send down streams to irrigate the plain and make it bloom and bear fine fruit and even plant cities at their feet, so metaphysical truth comes down to fertilize all the fields of the world. Every thought we reach on these high summits will help to shape and color all the practical affairs and even the most trivial details of life.

5. Systems of Metaphysics

Before entering the land of metaphysical speculation it may be well to take a general look at its map and get

a view of its main mountain ranges and peaks. Metaphysics is popularly supposed to be a labyrinthine maze of mysteries in which one may wander and get hopelessly lost, but it really admits of simple classification that will enable us to know the general region of thought through which we shall move.

The deepest distinction the metaphysician encounters is that between mind and matter. These are the two outstanding mountain ranges or peaks that always meet his view; and more than anything else his speculations are attempts to solve the problem of the relations of these two modes of reality. It results from this that any metaphysical theory has its nature determined and is classified by its attitude towards, or its solution of, this problem. These two forms of being may be viewed as the two foci around which sweep the curves of all metaphysical thinking.

In their relations to this problem, all metaphysics may be reduced to two great systems, the dualistic and the monistic.

(1) The dualistic system of metaphysics regards mind and matter as two irreducible forms of being. Neither can be resolved into the other, but both must be bound up together in one system. Matter remains external to mind as an extended and insensate reality, forming a kind of framework for mind, the backbone and skeleton of the universe; and mind, though unextended and sensible, holds relations with matter, and knows it as its object and uses it as its instrument.

Dualism assumes many forms, but the irreducible reality of both mind and matter is its essential principle.

(2) The monistic system of metaphysics merges the two focal points of mind and matter into one center or substance, which becomes the reality back of all the manifestations of being. One or the other of these two focal points may absorb the other and become the center, or both may be viewed as manifestations of some deeper unitary reality, and thus monism divides into three branches. If matter absorbs mind so that mind is only a manifestation of matter, we have materialism. If mind absorbs matter so that matter is only a manifestation of mind, we have idealism.

The name "idealism" for this system of metaphysics is somewhat unfortunate and misleading, as ideas are only one activity of mind. "Spiritualism," which has been used in this sense, is also objectionable. Some idealists now use the term "personal idealism," and others use the term "personalism." President A. H. Strong has adopted the name "ethical monism," and "personal monism" suggests itself as an admirable descriptive and distinctive name. However, "idealism" is the historical name for this system and is likely to hold the ground.

The third form of monism makes both mind and matter manifestations of some deeper but unknown and unknowable reality, which underlies both as their common cause. Those who hold this view are sometimes called "monists," *par excellence*, in contrast with

materialists and idealists, and they may be properly denominated agnostic monists.

The materialist says that nothing exists but matter, and that all things that seem else are its manifestations; the idealist, reversing this, says that nothing exists but mind, and that all things that seem else are its manifestations; the agnostic monist says that there is one unitary substance or form of being which manifests itself in both mind and matter and is otherwise unknown and unknowable. The tendency, however, of the agnostic monist is to relapse into either materialism or idealism, regarding the one or the other of these forms of being as the fundamental reality. When a monist believes the ultimate reality is unknowable, he is an agnostic; when he believes it is matter, he is a materialist and an atheist; when he believes it is impersonal, he is a pantheist; and when he believes it is personal, he is a theist.

It must be admitted that monism has been more attractive to the metaphysical mind than dualism. The large majority of the master metaphysicians have been monists of one or another type. Aside from the question of evidence, a preliminary reason for this may be found in the tendency in the human mind to reduce the manifold manifestations of being to as few forms as possible. The growth of knowledge consists in reducing things to fewer and fewer classes or kinds; the logical end of this process is one kind, unitary being. Monism may be said to start with the advantage of

satisfying this unifying principle and instinct of the mind; it leaps to the logical end and completion of all knowledge when it finds one ultimate reality. Even the dualist feels this powerful attraction towards monism, and he tends to gravitate towards the one or the other of his two foci. He is trying to stand on two stools and is in constant danger of slipping and falling the one way or the other. Yet we must not give weight to this presumption in favor of monism, and must beware of turning it into an assumption. The question of the truth of dualism or of monism is to be determined, and we must give each of these two theories an equal chance to make good its claim. No prejudice or presumption must be allowed to throw a weight into either scale, and only the truth must be allowed to determine the issue.

CHAPTER II

THE WORLD FROM DIFFERENT VIEWPOINTS

EVERY one sees his own world. Out of the infinite, manifold mass of reality that lies around us and sends complex streams of influence in upon us, each one selects his own materials and constructs his own universe. Four men stand and look out over a landscape. The first is a farmer, and his eye takes in the lay of the land and the qualities of the soil, and he puts it down as worth so much an acre. The second is a lumberman, and his eye lights on the forests and picks out the different kinds of wood and estimates their quantity and quality, and he puts it down as worth so much a thousand feet. The third is an engineer, and unconsciously he begins to trace lines of elevation and to make cuts and drive tunnels, and presently he sees a railway train rushing across the scene. The fourth is a painter, and he sees foreground and background, a picturesque combination of forest and field and stream, and over it all a flood of many colored splendor, and he reaches for his brush to catch the scene on canvas. So every one carves out his own universe and sees his own world. He can see only what his eye is fitted to see, what his nature and training let him see. Yet each one's world is true and good for him, and is not inconsistent with the truth and goodness of other men's worlds.

This simple illustration may prepare the way for deeper distinctions, worlds more widely and startlingly separated. Let us set three men to looking at this landscape and note what they see. These three men are a plain man, a scientist, and a metaphysician.

1. The Plain Man's World

The "plain man," also known as the "naïve" and the "unreflective" man, is a character that frequently appears on the pages of the metaphysician, and sometimes he seems to be viewed by the thinker with no small amusement. However, the terms "plain," "naïve," and "unreflective" as applied to this worthy person are used in no offensive sense. They are not at all used in the sense of ignorant, unintelligent, bigoted, or dull. The plain, naïve, unreflective man may be one of general intelligence and even of high education along some lines. The distinguishing mark of this man is that he lives in the phenomenal world, or in the world of appearances. He believes that things exist objectively in extension just as they appear subjectively to him, and he may not know or suspect the true nature of these realities. Of course he knows there are such things as appearances and deceptions, and he has found some of them out. He knows that "all is not gold that glitters," that the angle in the stick at the point it leaves the water is an appearance, that all the senses are subject to illusion, and he may be remarkably keen and skillful in detecting deceptions in practical affairs. Nevertheless, he takes the world of

things as being what it seems, and may not have so much as heard of a noumenal as distinguished from a phenomenal world.

Let this plain man look at the landscape, and what does he see? He first sees it as part of the general solar system, and he may think that this system is in its motions what it seems. Now the sun appears to move around the earth. The plain man sees it descend over that landscape down behind the western hills as clearly and indubitably as he ever sees anything in this world. There is nothing in the whole field of the senses that at first sight seems more certain than the movement of the sun across the sky.

But perhaps our plain man, as he may be an intelligent and educated man, may be shocked and insulted at the suggestion that he holds any such view. Very likely; but if so, it is because he has so far ceased to be a "plain" man; he has at this point got out of and beyond the world of appearances. Yet the time was when all men, including even the scientists, believed in this appearance as the reality. For a long time after the scientists had changed their view on this point, the plain people held to the traditional belief. Some plain people in enlightened lands still hold this view, and occasionally there may be even a man of some education that believes the sun revolves around the earth. As for the world in general, probably the majority of human beings believe in this motion, and would triumphantly point to the moving sun in proof of it.

It is true that this apparent motion of the sun is not an appearance or phenomenon in the deeper sense in which the metaphysician regards color and sound as phenomena or appearances, as we shall presently see. But it belongs to the general class of appearances, and serves to illustrate the deeper kind. We may, therefore, with these explanations, include this appearance in the plain man's world. It logically belongs there, though many plain men have outgrown it.

Returning to the landscape, we note again what the plain man sees. He sees a spread-out extent of surface, composed of rock and soil, field and forest, overarched with sky and flooded with a sea of light; he sees all things variously colored blue and green and gold; he hears the songs of birds and the roll of distant thunder; and various odors effect his sense of smell gratefully or offensively. He picks up a pebble and it looks solid and feels hard; he strikes a telegraph wire and it gives forth a musical sound; he eats an apple and it tastes sweet; he crushes some pine leaves in his hand and they emit a pungent odor. These things affect the senses of the plain man just as they do those of the scientist and the metaphysician. His eyes and ears and all his senses may be as good as theirs. But he believes that all these things exist in objective reality just as they appear to him. He thinks that scene is spread out in extension; that it is all bright with light out there; that the colors are out there on the grass and in the sky just as he sees them; that the sound is in the air and the odor is the

crushed pine leaves; he thinks the pebble is solid without any break or gap in the continuity of its substance, and that the thunder is over the hill where he hears it. The plain man has great confidence in what he sees and hears and feels, and is sure that the landscape exists as his senses report it to him.

We must have respect for the plain man's view. In fact, so far as his world goes, he is right. This world of appearance works in practice. The plain man lives in it and does business with it; he trusts it at all points and feels it is as true as the stars. Just as soon, he believes, could the sun drop out of the sky as could this world of appearances play him false. So far, he is right, impregnably right. This world of appearances is true and good and to be trusted with unwavering faith. We all do and must live in it and do business with it. We cannot take a step or draw a breath without doing this. The world of appearances is the world of all men in which we live and move and have our being, and so far we are all plain men.

The difference at this point is that the plain man stops in this world, while the scientist and the metaphysician go on beyond it. The plain man is on solid ground when he believes in his own world, but he makes a mistake when he thinks that this world is all. His world may be true and good, and yet there may be something more; his interpretation of it may be partial and erroneous. His own proverbs, that "All is not gold that glitters," and that "Things are not what they seem," and his experi-

ence of illusions and deceptions in his own world should excite his suspicion and prepare him for something deeper in this same direction. His world is not false — unless he insists on its being the whole and the final world.

2. The Scientist's World

Leaving the plain man behind us, let us now go with the scientist into his world. The scientist accepts the world of appearances and lives in it just as the plain man does, but he also does something more. The distinguishing mark of the scientist is that he goes behind these appearances and seeks their proximate causes. He is not satisfied with the first testimony of the senses, but begins a process of investigation that revolutionizes the world of appearances. The first thing he does is to put the sun in the center of the solar system and send the earth spinning around it, thus directly reversing one of the plainest appearances of the world. It is true that this was done long ago and now does not affect us with surprise; in fact, it has become the plain man's traditional belief. But when first announced this change created immense surprise and consternation. The whole body of plain men said it contradicted their very eyes and was self-evidently false, the priests raged against it, and the very scholars, including many scientists, rejected it as absurd. Yet the evidence for it finally carried conviction even to the plain man's mind.

This change of belief probably was and is the greatest revolution ever wrought in human thought. It

shifted the center from the earth to the sun, and thereby shifted every point in the universe. No wonder that at first it dazed the human mind, for it seemed to rock the foundations of the world and to prove that the human senses are untrustworthy. So the scientist has reversed the first large appearance in that landscape, and has done it so conclusively that the plain man accepts the result.

Turning from large things to small, what do we next see the scientist doing? He takes the pebble that the plain man thinks continuous and solid, and resolves it into an immense number of molecules that are almost infinitely little, so small that the most powerful microscope has never seen them and probably never will see them. These molecules are separated by spaces that are immense as compared with the molecules themselves, so that the pebble is comparable to the solar system or to a nebula of stars. In a sense the scientist looks through the pebble as the plain man looks out through the heavens. Not only so, but the scientist next resolves the molecules into atoms that are again infinitely small as compared with the molecules; and then as the latest wonder he again resolves the atom into a swarm of electrons that are again relatively very small and separated by relatively immense spaces. Thus the pebble, so far from being continuous and solid, contains vastly more empty space than it does space filled with matter. Finally, the scientist dissolves the electrons into ether whirls or centers of pure energy, and thus all that con-

tinuous, solid, passive matter in which the plain man believes so confidently is gone. What is thus true of the pebble is true of all the matter composing the landscape and the whole world. The scientist looks through it and sees it, not only as discontinuous and separated by immense gaps or empty spaces, but as one palpitating mass of pure energy. By this time the world of the scientist is something radically different from that of the plain man.

The scientist sees something still deeper. That whole landscape, and indeed the whole world, is in his sight one vast mechanism, in which every part is mechanically connected with every other part, so that it acts as a whole and the slightest tremor or vibration at one point effects a corresponding change at every other point throughout the whole universe. Every vibration of every molecule or atom or electron can be explained in terms of mechanical laws. The scientist sees this framework of law underlying and causing and explaining all the appearances that the plain man sees. He hears the rustle of a leaf and connects it with atmospheric changes beyond the Arctic circle. He notes the tide rolling in on yonder beach and sees its cause in the moon that is heaping the sea up under its pull. He knows that every breath he draws alters the level of the Atlantic, and that when he picks up the pebble he changes the position of every star in the sky. Not only does the scientist see the world as it now exists thus all linked and woven together, but he also sees it by a continuous process of

evolution descending out of an inconceivably distant past and rolling forward into an endless future.

Thus the scientist sees a different world from that which the plain man sees. He is inclined to be very proud of his world. Perhaps he looks back with some degree of disparagement and pity upon the plain man's world, if not upon the plain man himself, although as a class scientists are not given to such thoughts. He sees that the plain man's world is true and good from the plain man's point of view, but that it is a superficial and poor world compared with the depth and grandeur of the world his eyes see.

Now the scientist's world, like the plain man's world, is true and good as far as it goes. He has looked through appearances into their proximate causes, and thus has reversed some appearances and put a different aspect on all of them. He has found a system of universal causation and thus laid bare the mechanism and order and harmony of the world. His investigations and discoveries have also been of enormous practical use as he has caught and conquered the forces of nature and made them the nimble servants of man. More than any other man the scientist has multiplied our comforts and luxuries and created our vast, splendid, modern civilization.

Nevertheless, the scientist is in danger of falling into the same error as the plain man, that of thinking he sees to the bottom of the world. He hears vague rumors of a metaphysical world beyond, and may be somewhat suspicious of it. Many of the things he hears about

this world may be to him idle tales or absurd conceits. In fact, some scientists appear never to have so much as heard of the questions the metaphysician asks and of the world he explores, and their unsophisticated innocence of these things may amuse the metaphysician as much as some of the notions of the plain man amuse the scientist. The scientist's world, like the plain man's world, is not false — unless he insists on its being the whole and the final world.

3. The Metaphysician's World

Let us now enter with the metaphysician into his world. He also believes in the plain man's world and in the scientist's world. He believes in them for what they are, and uses and enjoys them as much as anybody. He, too, is a man of flesh and blood, and keeps his feet on the ground. But he also knows how to leave these worlds behind and go on towards perfection. The metaphysician appreciates the plain man's appearances and the scientist's causes, but he is not satisfied to stop with these. The distinguishing mark of the metaphysician is this: he goes behind proximate causes and seeks one ultimate cause. He sees that the scientist with his proximate causes is still in the land of phenomena, of appearances, though his appearances are somewhat deeper than those of the plain man. The metaphysician seeks to get behind all appearances to reality itself.

What, then, does the metaphysician see as he looks out over that landscape? We are now concerned only

with giving a descriptive hint of the nature of the metaphysician's world, and not at all with the processes and proofs by which he reaches and justifies it. As he looks out over that landscape, the metaphysician begins a process of dismantling it and packing its apparent contents away in his own mind. The first thing he does is to sweep all light and color off the landscape and absorb them into his own sensations. He believes that light is a subjective sensation excited in his mind by some objective cause in the landscape bearing no resemblance to the subjective experience. There is therefore no light or brightness out there on the landscape, but it is all dark as absolute night. Light being thus swept off the landscape, all color goes with it, and there is no green on the grass or blue in the sky. In the same way, the sensations of sound, taste, smell, and touch are believed by the metaphysician to be subjective, and there is nothing like them in the landscape. There is no song of birds in the air, or sweetness in the apple, no pungent odor in the crushed pine leaves, and no hardness in the stone. These are subjective states in the mind, though they have objective causes. The metaphysician thus stands fronting an external world that in itself is dark, silent, tasteless, and odorless, though it has the power of exciting a wonderful world of sensation in the mind. So far all metaphysicians agree.

At this point metaphysicians divide into two great companies, the dualists and the monists.

The dualists stop this process of dismantling and ab-

sorbing the world at the points of space and time, leaving the world existing as a mass of extended reality moving through temporal changes, with which the mind holds relations.

The monists go on with the process of unifying the world, but carry it out to different results according as their monism is materialistic, idealistic, or agnostic.

The materialistic monist views matter extended in space and moving in time as the ultimate reality, and mind as a manifestation of it, a kind of halo or efflorescence playing around or within it that was exhaled out of it and will be reabsorbed; and thus he packs mind back into matter.

The idealistic monist carries the process of dismantling the world to its logical end in the opposite direction. He breaks down the very framework of space and time in which the world is contained and withdraws it into the mind. He conceives that space and time are intuitions of the mind and are no more qualities of things than are color and sound, but are modes of our experience excited by the objective reality. This objective reality he conceives to be mind or spirit, and usually the idealist conceives it to be one Absolute Spirit, or God, who affects us in the modes we call sensation and intuition. The idealistic metaphysician thus regards that landscape and the whole world as the reaction of our mind on God's mind. Sensation, space, and time are subjective in our mind, but they have their exciting cause and objective reality in God's mind.

The agnostic monist views matter as one and mind as another manifestation of the same unknown reality; and he may, or he may not, regard space and time as subjective in the mind.

By this time the plain man finds himself in a strange world, and all things begin to swim before his eyes and to melt into a mist of nothingness. The dualist is radical and destructive enough in sweeping all light, colors, sounds, tastes, and odors off the world, but the idealistic monist seems to lose his reason and go mad when he utterly wrecks and dissolves the world, even to its framework of space and time, and packs it away in the mind. Is not this the insanity of speculation? Who can conceive, much less believe in, and still less live in, a world of pure spirit where there is only a swarm of finite minds and one Infinite Mind? Are we really ghosts? Such a seemingly spectral world frightens the plain man, and even the scientist may flee from it in terror, or else — he may laugh at it.

Thus the metaphysician appears to have fulfilled before its time the poet's prophecy: —

> And, like the baseless fabric of this vision,
> The cloud-capped towers, the gorgeous palaces,
> The solemn temples, the great globe itself,
> Yea, all which it inherit, shall dissolve,
> And, like this insubstantial pageant faded,
> Leave not a wrack behind.

Both the plain man and the scientist may turn upon the metaphysician with the charge: —

Woe ! woe !
Thou hast destroyed
The beautiful world
With violent blow;
'Tis shivered ! 'Tis shattered !
The fragments abroad by a demigod scatter'd.
Now we sweep
The wrecks into nothingness !
Fondly we weep
The beauty that's gone. — *Faust.*

Nevertheless, the metaphysician of whatever type finds his world solid and comfortable. The supreme question with him is truth, and he believes his view is nearer the ultimate reality than either the plain man's appearances or the scientist's proximate causes. He remembers how startlingly the scientist reversed appearances in putting the sun in the center of the solar system, and he bids both the plain man and the scientist not to think it strange when a still more startling experience comes upon them along the same line. All we need to do is to get used to a new situation, and presently we shall feel at home.

Such are the three worlds: the plain man's world of phenomena as they are presented to the senses; the scientist's world of proximate causes as they are traced by the observing mind; and the metaphysician's world of ultimate reality as it is reached by a still deeper process of reflection. These three worlds are not sharply divided off from, but they shade into, one another; and it is the same general mental process pro-

gressively applied and made more and more thorough that carries us from one into the next. The plain man observes and reflects on his world of appearances in some degree; the scientist observes and reflects more carefully, and thus discovers his world of causes; and the metaphysician simply reflects more deeply and strenuously still in reaching his world of ultimate reality.

The world of appearances must ever remain the world in which we live and work. The warp and woof of our experiences are woven of its phenomena. Our business is adjusted to it, our habits are framed to fit it, our language is saturated and colored with it, and our inmost thoughts are cast in its molds. Passing into the scientific world does not take us out of the practical world of appearances. We still speak and even think of the sun as rising and setting, though we know that this motion is an appearance. We still speak of solids, though we know that nothing is solid. So in passing into the metaphysician's world we still retain the habits of thought and speech that reflect the phenomenal world. We speak and think of things as being colored and resonant and sapid and odorous and as occupying space and moving in time, though we may believe that these qualities are subjective experiences of our own minds and do not belong to external things. The metaphysician's world is an attempt to conceive and construct in thought the world of ultimate reality, and such a construction does not take away or change the phenomenal world in which we live.

We have thus endeavored to give some conception of the metaphysician's world, and we find it diverging into several forms. We are now to proceed to unfold the processes by which the metaphysician attempts to reach his world, and to indicate the grounds on which its several forms are founded.

CHAPTER III

THE SUBJECTIVITY OF SENSATION

In this investigation it will be best to begin with the ordinary view of the world, and then subject it to examination to see whether it will stand without modification, or whether it must be reconstructed to meet the demands of our thought. This has been the history of philosophy. The scientist holds on to the plain man's view at as many points as he can, and recedes from it only as he is driven by logical pressure; and the metaphysician adheres to the scientist's view and yields only under the same compulsion to a deeper reconstruction.

The ordinary view of the world pictures it as an external, extended, insensate reality, bright with light, sonorous, odorous, sapid, and hard. The average man thinks of these qualities as being in the material world and equally present whether a sentient mind is present to experience them or not; and we all habitually think of such a world, and in it we live and move and have our being. Will such a theory of the world stand? or must it be reconstructed? Let us start with the assumption of such a world, and then examine it from different points of view.

1. The Physical View

The physicist first examines this world, beginning at the outer end of the complex fact we call sensation. He investigates sound and finds it to consist in the external world of vibrations in the sonorous body which are communicated to the atmosphere and propagated through it to the drum or tympanum of the ear. In a similar way he finds light to consist of infinitely more rapid vibrations in an inconceivably finer atmosphere or medium, called ether, these enormously rapid pulsations striking against the retina of the eye somewhat as the pulsations of the air strike against the tympanum of the ear. Thus all that we find in the external world in the case of sound and light are vibrations of air and ether. These vibrations bear no resemblance to the sound and light we experience. We can only conceive them as being minute motions back and forth in tenuous media that are in themselves absolutely silent and dark. In the case of odor the scientist finds it is caused by a fine rain of particles thrown off by the odorous substance, which impinge on membranes of the nostrils. In taste, particles of the sapid substance act upon the papillæ of the tongue. As in the case of sound and light, these causes bear no resemblance to the sensations in the mind. In the sense of touch, the scientist finds that what we call hardness in an object is the energy of the atoms driving and holding them apart and resisting our attempt to force them together. We press against the object,

and the object presses against us; and the degree of firmness with which it resists us constitutes the degree of its hardness.

The result of the physicist's examination of the external world is to change the ordinary view of it profoundly. He resolves its apparent brightness into vibrations, its sounds into waves in the air, its odors and tastes into an emission of minute particles, and its hardness into resistance. Already the world of our naïve minds has undergone a reconstruction that results in an external world very different from what we supposed it to be.

2. The Physiological View

The physiologist at this point takes up the problem of remodeling the world, and carries it a step farther. He dissects the nervous apparatus of sensation and discloses its delicate mechanism. Fine threads run from the various external sense organs to the sensory centers of the brain. The tympanum of the ear vibrates in unison with the air waves that in turn have been caused by the vibrating body. These vibrations of the tympanum are propagated through the complex apparatus of the internal ear to the auditory nerve, which transmits some kind of influence to the brain, producing in it an excitation on occasion of which the mind experiences sound. The auditory nerve does not transmit mechanical vibrations similar to those which reach the tympanum of the ear, but some other mode of activity of unknown

nature. This unknown influence is again unlike the vibrations of the sonorous body and wholly different from the experience of sound in the mind. Similar statements apply to the optic nerves, transmitting the shocks of the ether vibrations upon the retina of the eye to the optic tract in the brain, and to the nerves transmitting the excitations of odor, taste, and touch from their sense organs to their respective brain centers. The nature of the unknown influence thus transmitted along the nerves is unlike the external cause of the sensation as it arrives at the sense organ, unlike the excitation of this organ itself, and wholly different from the sensation.

Thus the nervous system interposes between the outer sense excitation and the inner mental experience links that are different from both. If sound consists of pulsations of certain wave lengths and frequency in the air, such pulsations do not reach the brain over the auditory nerve. If colors consist of certain vibrations of infinitesimal wave lengths and enormous rapidity in the ether, there are no such vibrations in the brain, for they cannot be transmitted over the optic nerves. Similarly, there are no sweet or odorous particles in the brain, for they cannot be transmitted along the nerves. If touch consists in pressure on the external ends of the nerves, there is no such pressure on the inner ends of the nerves, as they terminate in the brain. Thus the changes taking place in the brain are of a different nature from those taking place in the external world. If the external

world consists of an extended reality that is luminous, sonorous, odorous, sapid, and resistant, such extended reality cannot be brought into the brain, for it is separated from the brain by lines of communication that cannot transmit such modes of reality. The physicist and the physiologist have combined to prove such transmission impossible.

3. The Psychological View

The psychologist now appears on the scene and takes up the thread of investigation at its inner end. He studies the nature of sensation itself. At once he points out the fact that sensation is a mental experience totally different in nature from anything in the external world. It is a conscious state of the soul, and as such cannot be compared with anything material. The two things are so different in nature that there is no common ground or element in them. The one is a state of thinking and feeling, and the other is an unthinking, insensate substance. All our sensations are mental states. Sound is a state of mind in which we have a certain peculiar mental experience that cannot be described and can only be felt. Light is a state of mind in which we experience a sense of brightness. So taste, odor, and touch are mental states in which the soul is conscious of certain peculiar experiences. It is impossible to resolve a sensation into anything else than a mental state, or to think of it in the terms of material existence. A sensation cannot be round or square, bright or dark, sonor-

ous or silent, sweet or bitter, hard or soft, in itself, because it is not an extended material substance, but a mental affection, and mind does not and cannot have material qualities; it is *sui generis*, a kind of reality that is apart from material reality and refuses to mix with it.

Sensation, then, has its seat in the mind and is never found outside of it. This is an elementary fact in psychology, but it is a fundamental fact with far-reaching consequences in metaphysics, and it may be well to illustrate it at some length in order that it may be seen clearly and grasped firmly. The fact is open to our immediate introspection. When we are hearing a sound or seeing a light, we are not aware of any vibrations in the air or in the ether, and may not have so much as heard of these things; yet the physicists tell us that these vibrations are all that is in the external world as the cause of our sensations of sound and light. We need only pay attention to what is going on in our minds to perceive that our sensations are wholly subjective.

It is thus a mere truism, but one that needs to be emphasized in this connection, that there is no sensation of sound in a sonorous body, or of light in a luminous body, or of sweetness in sugar, or of odor in a rose, or of hardness in a stone. These sensations are in every instance states of experience in us caused by some action upon us by these things. There is no sound when a bell is ringing or when Niagara is falling, and no sentient mind is present to hear these things: all that

is going on in them is a state of motion, and motion cannot hear. The bell is not conscious and hears no sound. Niagara is only a mass of moving water and cannot hear its own fall. There is no redness in the rose, or green in the grass, or blue in the sky. Red and green and blue are sensations in us, and have no existence or meaning outside of a sentient mind. The sun is not bright; it is only in a state of motion, and motion cannot be described as either bright or dark. The motion of the sun is transmitted through the ether to our eyes, and reaches the brain as some kind of action which is the exciting cause of the sensation of light in our minds; until that sensation is experienced, there is no light, but only motion. Of course we speak of the sun as being bright, and this use of language is proper and inevitable. But so also do we speak of the sun as rising and setting, and yet we know that this is only an appearance, and not the reality. Light is something that cannot exist in the sun, because the sun is not sentient and cannot experience any sensation of light; and light cannot be transmitted to us through the ether and the optic nerves, because these things cannot experience any sensation. There may be motion in the form of vibrations in the sun and in the ether, but there can be no light until the mind is affected with this sensation.

And so it is with all the other sensations. Sugar is not sweet, because it cannot feel sweetness; it only has certain chemical powers by which it can act upon the tongue. We call it sweet by a metaphorical use of

language, but the real sweetness is in the mind and not in the matter. The rose is not fragrant; it only emits minute particles which affect certain nerves, and then the mind experiences the sensation of fragrance. Hardness is not in the stone or iron; it is in us as a mental experience, a condition of our will in which it is encountering resistance.

A further illustration and proof of the subjectivity of sensation may be given. The external cause of sound is vibration in the sounding body transmitted to us through the air. The lowest number of these vibrations that produce in us a sensation of sound is sixteen a second. If there be only fifteen vibrations a second, nothing is heard; but increasing the number from fifteen to sixteen vibrations a second causes a sound to be heard in the mind. The only change in the external world is one more vibration a second, but this causes in the mind the whole difference between silence and sound. The internal difference bears no proportion and likeness to the external difference. At the upper end of the scale it is possible for the human mind to hear vibrations up to thirty-eight thousand vibrations a second. When the number of vibrations increases beyond this, the sound again passes into silence, and again a slight change in the external world is succeeded by a totally different change in the mind. The same kind of experience is had in connection with light waves. When the vibrations of the ether number about four hundred trillions a second, they affect us as light of a dull red color. When

the number of vibrations is reduced below this, they no longer affect us as light, but they affect us as heat, a totally different sensation. As the vibrations increase in number, the sensation of light changes in color from red up through orange, yellow, green, blue, indigo, and violet, each change in color being caused by shorter and more rapid vibrations. When these vibrations are about double the number of red light, they again cease to affect us as light, but still continue to affect a photographic plate. Thus while the outer changes in the vibrations are a continuous increase in rapidity, the mental changes are wholly different; and again it is seen that sensations are subjective states of mind.

This does not mean, it must always be said, that sensations in the mind have no cause or occasion in the objective world; they are not self-caused subjective states, having no connection with objective conditions. As we have constantly seen, they do have an exciting cause in the objective world, but the nature of this cause is not yet before us, and will be considered later.

4. The Metaphysical View

The metaphysician now takes up this investigation and carries it still farther. He calls the inner sensation the phenomenon, and the other cause the noumenon. A phenomenon is what the mind experiences when it is acted on by an objective cause, and the objective cause is the corresponding noumenon. The phenomenon is that which appears to the mind, and the noumenon is

the reality which is the cause of this appearance. Sensations are thus phenomena by definition. They are the things immediately known to, and present in, consciousness. Thus, in the case of an orange, its yellowness, taste, odor, and hardness are immediately in the mind as its states, and these are the phenomena of the orange. We have seen that the physicist and the physiologist find, as the cause of these sensations in the mind, certain vibrations and other modes of motion in the objective world. At this point the metaphysician steps forward to show that these outer physical changes as thus conceived are of the nature of phenomena, also. In the case of sound, the physicist tells us that its external cause consists of vibrations propagated through the atmosphere. He proves this by pointing to certain ways in which the air behaves. He shows us that when a bell is struck in the air, it affects us as sound, but that when it is struck under a glass receiver from which the air has been exhausted, we hear no sound. He has ingenious processes by which he measures the length and rapidity of these sound waves; and he assures us that if we had eyes of sufficient refinement to discern the air itself, we would see these waves of successive condensation and rarefaction. The physicist does not actually see these waves, but he has a mental conception of them and is as sure of them as though they were before his eyes.

Now what the physicist tells us about these waves is true from his point of view, and he may believe that

they exist in reality in the external world just as he imagines them. But in doing this he is making the same kind of mistake the plain man makes when he thinks that sound exists in the external world just as he hears it. For the metaphysician now points out that these ways in which the air behaves are only the ways in which something is affecting our minds, and are themselves phenomena in our minds. The motions of the waves and the visible waves themselves, if we could see them, what are these but states of our minds? They are themselves sensations of the mind, either in reality or in imagination, and as such they take us no nearer the ultimate reality than we were before. If we could see the sound waves in the air, we would only be experiencing a phenomenon of which the noumenon would still be unknown to us. So with the vibrations of ether that are the external cause of the sensation of light. The physicist infers and proves the existence of these vibrations, as in the case of the sound waves. But all that he perceives and conceives in connection with these ether vibrations are themselves mental states caused in him by the objective reality; and the same process of reasoning that led us to see that the subjective sensation of light is different from these external ether vibrations, now leads us to see that the mental conception we form of these vibrations is different from the external reality. The same is true of the other sensations of odor, taste, touch, and motion. The physicist's conceptions of the external causes of these sensations are themselves mental

states; appearances or phenomena in our minds of realities or noumena that are still beyond us and unknown to us. He may think he is dealing with a physical entity, but his "atom" is really a psychological conception built up in his own mind.

Let us state this in another way. When we perceive through our senses a material object, such as an orange, we experience sensations of color, sound, odor, taste, and touch which combine into mental unity and form the mental construct of the orange, which is the orange as we know it. The physicist not only finds the cause of these sensations in certain motions in the orange, but he also resolves the orange into very small particles or molecules, the molecules into atoms, and the atoms into electrons. Are we getting any closer to the ultimate reality by these ever more minute divisions? We do not perceive these things through any of our senses. But suppose they were so magnified or our senses were so refined that we could see and hear and touch them; would we not still be conscious only of sensations or phenomena in our minds? The conceptions we form of atoms and electrons are the ways these things would affect us if they could individually be made to excite our senses; and however far this process may be carried, and however refined it may become, the resulting states in our minds are phenomena of objective reality we have not yet reached.

The result of this reasoning is that all our sensations are phenomena or states of mind caused by noumena or

objective conditions the nature of which we have yet to find. Not only the green in the grass and the blue in the sky, the perfume of the rose and the taste of the orange, are mental states, but the grass itself and the rose and the orange, yes, and the sun and stars as we experience these things, are mental constructs of sensation or phenomena in our minds. Not only so, but our bodies with all their organs as known in our experience are just so many constructs of sensation or phenomena to us. The whole objective material universe is thus resolved into subjective phenomena of which the noumena or objective causes are as yet unknown to us. Such a universe may seem at first sight to have been dissolved into airy nothingness, but the world of our experience has not been touched by this process of reasoning and remains as solid, orderly, and trustworthy as ever. We have simply taken the first steps towards discovering the nature of the world of causation that lies back of our experience.

This subjectivity of sensation has thus profoundly remodeled our view of the external world and has carried us far from the plain man's world towards the metaphysician's world. So far psychologists and metaphysicians are generally agreed. We must now look into a deeper and still more startling subjectivity.

CHAPTER IV

THE SUBJECTIVITY OF SPACE

We have now reached a point where we see that external objects as regards their sensational qualities are subjective states of the mind. As invisible actinic rays of the sunbeam in falling upon a sensitive photographic plate stir its chemicals into activity and call forth in it images that are wholly unlike themselves, so influences from external objects fall upon the mind and stir it into action by which sensational images arise in it that are unlike the supposed exciting causes. These various images of color, sound, odor, taste, and touch combine into unitary images, or objects.

But there are two additional elements in these objects we have not yet considered — space and time. The sensational images combine into objects that assume spatial forms and are successive in time. These additional elements are called intuitions, in distinction from the sensations of the senses. Whence come these intuitions? Are they inherent qualities of the supposed external objects which impose themselves on the mind's subjective states? or are they also subjective principles in the mind, like its sensational powers, which the mind itself supplies to, and imposes upon, its

own sensational states? The latter view is the one held by idealists. This subjectivity of space and time is the hardest saying and greatest rock of offense in philosophy to the plain man, and at first sight he can hardly think of it as other than an absurdity. Nevertheless, what has gained and compelled the consent of so many master thinkers in this field of thought must have some foundation, and should receive our close and unprejudiced consideration.

I. The Theory Explained

Let us first understand the theory. We must now for our present purpose assume the idealistic point of view and think of external objects as spiritual in their nature, or spirit, the kind of reality we immediately know in ourselves and know as non-spatial in its nature. Influences from these mental objects fall upon the mind and excite it into action according to its own constitution and laws. By such action the mind experiences a number of sensational states which combine into a unitary image or object under a spatial form. This spatial form does not come from the external object in the sense that it is a copy of the form of the external object, for this object is itself spirit and has no spatial form. The spatial form is the product of the mind's own activity, just as are the sensational qualities excited by the external object. Objects as we know them are thus created within the mind by its own inherent powers as these are excited by external influences. Space is thus sub-

jective in the mind, and is not a condition or mode of being in the ontological world. There is no space anywhere except as a mental intuition or mode of experience. Space is in the mind, but the mind is not in space; just as color and hardness are in the mind, but the mind is not colored or hard. The real world is a purely mental world, or world of spirit, without any spatial qualities.

But while space does not exist in the ontological world, it does exist as a mental form or intuition in the phenomenal world. It is a mode of our experience, and as such its reality stands untouched by the theory of the subjectivity of space. The phenomenal world, which is the practical world in which we live, is constantly and intuitively conceived by us under spatial forms, and nothing can ever, in our present constitution or in our present mode of existence, dissolve the reality of this world and dissipate it into nothingness. If we keep this distinction between the non-spatial form of the ontological world and the spatial form of the phenomenal world clearly before us, it will save us from the common misconceptions of the theory of the subjectivity of space and relieve it from the appearance of absurdity.

It should be further said, in explanation of the theory, that while space is viewed as wholly subjective, yet it is not viewed as an uncaused and arbitrary condition of mind, any more than sensations are. It is started into action by the excitation of objective causes, just as sensations are thus excited. And, further, the forms of

space correspond with particular activities or relations in objective conditions, just as sensations correspond with definite appropriate causes. Space is thus a symbol or kind of language which reports to us corresponding modes or relations in the ontological world. We shall revert to this point again.

2. Reasons of the Theory

Some of the arguments that metaphysicians have used to establish this theory are subtle and difficult to grasp, but the more convincing ones are easily understood.

(1) The first argument for the subjectivity of space is its analogy with the subjectivity of sensation. As sensations are found to be indubitably subjective states that arise within us on occasion of objective excitation, the tendency is strong to think that the intuition of space arises in the same way. The attempt has been made to call the intuitions of space and time the primary qualities of matter, and the sensations of color, sound, odor, taste, and touch the secondary qualities, and hold that the former inhere in matter and the latter are subjective in the mind. But no good grounds can be given for this distinction. As the mind when stirred to action produces its own sensations, so it would appear that it produces its own intuitions. The subjectivity of the primary qualities presents no new principle or difficulty over the subjectivity of the secondary qualities.

(2) The primary quality of space cannot be transmitted through the senses, just as the secondary quali-

ties of sensation cannot be so transmitted. If we suppose that an external object, such as an orange, exists in a spherical spatial form, that spatial form cannot pass from that object through the intervening media into the mind. The influences the orange emits or exercises are various vibrations and minute particles and resistances: granting that these exist in a spatial form in the orange, they pass through various transformations in transmission in which they lose that particular form, and when they reach the brain there is nothing round in the excitation which they set up either in the brain or in the mind. There is no reason for thinking the nervous disturbance in the brain assumes a circular or spherical form: rather we know this disturbance does not assume this form. Physics and physiology destroy the possibility of the transmission of spatial forms, just as they do of sensations.

(3) The argument for the subjectivity of sensation that it is a state of mind and cannot exist in an insensate reality, applies to the intuition of space. The intuition of space in the mind is not a spatial form, but only a mode of experience, or a mental state. There is nothing in the mind that is extended as a plane, or that fills space as a cube; nothing that is round or square, angular or curved, straight or crooked. Our idea of a square is not four-sided, or of a circle is not circular, or of a cube is not cubical. A crooked line does not create anything crooked in the mind. The ideas of the mind are no more round or square, straight or crooked, than they

are red or green, hot or cold, hard or soft. The intuition of space is thus a mode of the mind's experience, just as its sensations are. It was not brought into the mind through the senses, but is the product of the mind's own activity. As we experience space, it is undoubtedly an intuition or state of mind, and no mental state or quality can be attributed to an insensate reality. The mind knows space only in its own experience. It cannot get out into space and move around in it, for as a non-spatial being it has no such power. Thus since space arises in the mind by its own intuition, there is the same reason for believing it is a subjective state of the mind and not an external reality as there is for believing the same thing in the case of the sensations.

(4) The apparent impossibility of interaction between a spatial brain and a non-spatial mind is an argument against the externality of space and for its subjectivity. Granting that the brain is spatial, how can such spatial reality and the non-spatial mind be brought into relation and interaction? How can the brain act on the mind, and how can the mind apprehend the brain? The brain cannot act on the mind at definite points or parts, for the mind has no such points or parts. And the mind cannot see or hear or smell or taste or touch the brain, for it would then need to have another set of sense-organs to see and hear and smell and taste and touch the brain with. We cannot conceive how these two modes of reality can even get together. The brain is in space and has a

spatial form, but the mind not only has no spatial form, but is not even in space; it has no spatial relations whatever. Professor G. S. Fullerton, of Columbia University, a dualist, affirms: "We must remember that the mind is neither *in* the brain nor *near* the brain. . . . My mind . . . is not a whit nearer to my brain than it is to the brain of the Emperor of China or to that of the Pope of Rome."[1] He is correct in this affirmation, for the mind, having no spatial quality, can have no spatial relation. This fact, thus boldly asserted by a dualist, gravely embarrasses, if it does not render impossible, the dualistic position that the spatial brain and the non-spatial mind must nevertheless interact. Dualism is everywhere perplexed and imperiled by the necessity of combining two such diverse and antagonistic modes of being as mind and matter; but idealism escapes this difficulty by reducing these two modes of being to one reality.

(5) A strong argument for the subjectivity of space is drawn from the ontological nature of the soul. We have already seen that objective realities are known to us as phenomena, which are states of our mind excited by these realities. The soul itself, however, is not a phenomenon; that is, it is not an object excited in us by something other than the self, but is reality immediately known to us as the self. The unity of our conscious life is our soul, and this reality does not make itself known to us through phenomena, for then we

[1] "A System of Metaphysics," page 316.

would need to have another soul to experience these phenomena, but it is known by immediate intuition. The soul is not something different from what we experience in our consciousness, as a phenomenon is different from its noumenon, but it is our experience as consciousness. Our conscious life is thus our soul, and our soul is our conscious life. In our soul we thus know reality at first hand without any intermediation of phenomena. This fact that we know reality directly in the soul is a primary fact of consciousness, and it is a basal principle of idealistic metaphysics. For we thus come upon the fact that the only reality we know by immediate contact and intuition is spirit and is non-spatial in its nature.

We sometimes have a desire that we might get at reality directly and know its nature by immediate vision and not have to reach it through the roundabout process of the senses and phenomena. Cannot this veil of phenomena be torn away and we be permitted to see reality face to face? This is done in our experience of the soul. Here we do not know reality through senses and phenomena, seeing things afar off through a glass darkly, but we have immediate vision of reality and see face to face. And reality when thus known is found to be spiritual and non-spatial.

It is now but a short step and a fair inference to the conclusion that the reality which is objective to ourselves and manifests itself in us as phenomena is of the same nature as the reality in ourselves. There is a strong

tendency in us to believe in the unity of reality; that the world under all its manifestations is one web woven of the same threads throughout, but arranged in different patterns; that it is not divided and scattered, but is one continuous piece. The reasons for this belief will appear as we proceed, but, granting it, we are led to believe that the same power that wells up within us as consciousness wells up without us as the world of phenomena. Mind and matter, soul and world, are thus one unbroken piece of reality, one stream flowing from the same fountain, but issuing in different jets. "Thou art that," said the ancient Hindu philosophy, a saying that expresses the deep kinship and unity of soul and world. The soul is a little world, and the world is a great soul, as we shall further see in Chapters VI and VIII. When we know the soul, then, we know the world. The reality in the one is the same reality that is in the other. The soul is spirit: therefore the world is spirit; and as the soul is non-spatial in its nature, so also is the world.

(6) This argument is confirmed by the spiritual nature of the ontological world as determined on independent grounds. These grounds will be set forth in Chapter VIII. According to this fundamental principle of idealism, the ontological reality is mind — the one Infinite Mind, or God, and all finite, created minds. Objective things which affect us as our phenomenal world are manifestations of God's mind in our minds, or the reaction of our minds on his mind. He thinks and feels and wills the world, and his thoughts reacting

on our minds excite in them our phenomenal world: his thoughts thus become our objects. If this view be established, then the subjectivity of space is established along with it. Spirit, whether human or divine, is non-spatial in its nature. Our mind has no spatial form or quality, though it has the power of conceiving its phenomenal experiences under spatial forms; and no one ever thinks of God as having spatial dimensions. If, therefore, the one reality in the universe is mind, and matter is only its subjective manifestation, space is subjective and does not exist as an objective reality in the ontological world.

(7) Kant's argument for the subjectivity of space is that the intuition of space is never the product of our experience, but precedes our experience as an *a priori* form. This argument of his is brief and clear and may be quoted in full: —

"1. Space is not an empirical concept which has been derived from external experience. For in order that certain sensations should be referred to something outside myself, *i.e.* to something in a different part of space from that where I am; again, in order that I may be able to represent them as side by side, that is, not only as different, but as in different places, the representation of space must be already there. Therefore the representation of space cannot be borrowed through experience from relations of external phenomena, but, on the contrary, this external experience becomes possible only by means of the representation of space.

"2. Space is a necessary representation *a priori* forming the very foundation of all external intuitions. It is impossible to imagine that there should be no space, though one might very well imagine that there should be space without objects to fill it. Space is therefore regarded as a condition of the possibility of phenomena, not as a determination produced by them; it is a representation *a priori* which necessarily precedes all external phenomena." [1]

The argument in brief is, that in order that the mind may interpret the excitation caused in it by external objects in terms of or under the form of space, the mind must already have this mode of representation. External objects send up into the brain and to the mind certain excitations: how can the mind cast these into the spatial form unless it already has the power of originating this form? If the mind did not already know the meaning of these excitations, they would speak to it in an unknown tongue. This argument applies to all the senses without exception. Some dualists concede that our sensations are subjective, and cannot give us the intuition of space, until they come to the sense of touch or of touch-movement: here they make a stand and try to extract from this sense the reality of an extended world. Thus Professor Fullerton relies on "touch-movement sensations" to give us "the very stuff of which the external world is made." [2] But this distinction will not hold.

[1] "Critique of Pure Reason," F. Max Müller's translation, pages 18–19.
[2] "A System of Metaphysics," pages 379, 416.

The sensation of touch is as subjective as any other sensation, and can no more give us our primary intuition of space than can other sensations. Our senses, including touch, can no more give us space than they can give us color and sound, and they only furnish the exciting causes on occasion of which this intuition arises in our minds.

(8) There are certain difficulties involved in the idea of an ontological space that have great weight with some thinkers. If there be such space, what is it? Is it some thing? or nothing? Either horn of this dilemma, if seized, will give us trouble, if it does not impale us. If there be such ontological space, is it infinite in extent, or is it finite? We cannot conceive it as being either the one or the other, and this antinomy seems to embarrass the idea of ontological space. Great thinkers, such as Immanuel Kant and Sir William Hamilton, have puzzled over this difficulty and given it up as insoluble. The existence of ontological space is also said to be inconsistent with the unity of reality. If any reality exists with part external to part in space, then it is divided and its unity is shattered. The unity of the soul and of any spiritual being consists in its indivisible conscious life, with no parts of faculties that are outside of, or in any spatial relation with, one another. The introduction of spatial relations into reality would sever its unity and destroy it. Both of these difficulties disappear when space is viewed as a subjective intuition.

Moreover, is there any fixed standard of space objective to the mind? What is the real size or distance of

objects? If we look at them with our unaided eyes, we see them at a certain distance and of a certain size. But if we use a telescope, the distances are shortened up, and if a microscope, the sizes are magnified. The simple introduction of a convex piece of glass before the eyes reconstructs the whole spatial world. Which is the true spatial world, that of the natural eye, or that of the telescope, or that of the microscope? No two of us see the same space forms, for our eyes differ endlessly in convexity, and a minute difference at this point changes the spatial form of the whole universe. Space depends on the seeing eye as much as on the object seen. This puts a large subjective factor into our space conceptions and points towards a deeper subjectivity in the mind itself. Such puzzles and refinements as these have little force with some minds, but appear weighty and convincing with others.

(9) We may briefly consider the objections to this theory. The objection that first presents itself and seems utterly to explode the theory is that it is contradicted by the plain testimony of the senses. Can any fact be more certain than that we see things spread out before our very eyes and feel them extended with our hands? The answer is that we see and feel them extended only as we see and feel them colored and hard. Yet the reasoning that shows us that the color and the hardness are not in external objects viewed as extended and insensate realities is conclusive, and is admitted by practically all dualists themselves. We undoubtedly

do see and feel things as extended, but the things we thus see and feel are phenomenal things in our own minds, and the nature of the ontological things that are the exciting causes of these phenomenal experiences is yet to be determined. We admit what the plain man sees and feels, but we deny his interpretation of his experience. He has certain experiences of sensation and intuition, and he interprets these into an extended and insensate world. We have the same experience with him, but are led to interpret it in a different way.

There are certain popular ways of putting this objection that have been used from of old time. One man bumps his head against a post and forthwith declares that that too, too solid post has forever knocked idealism out of it. Another sits down on a chair and triumphantly announces that it is there, and another thumps himself on the ribs and thus assures himself he has a body and declares he will keep it as long as he can. The author once heard a great teacher of theology say to his class, "Go up to an idealist and poke him between the ribs with an umbrella and he will quickly believe in the material world." Now these humorous illustrations are all ancient, and they have gained no wisdom with age. They raise a laugh among the uncritical, but they also amuse the idealist, only he smiles at the unsophisticated innocence that has not yet understood the theory. The idealist also believes in the post and the chair and the body as much as anybody. "I have never doubted that fire is hot and that ice is cold," says Berkeley, of

whom it has been said: "No man ever delighted less to expatiate in the regions of the abstract, the impalpable, the fanciful, the unknown. His heart and soul clung with inseparable tenacity to the concrete realities of the universe."[1] Idealism does not touch the reality of flesh and blood, earth and sun and stars, and the whole phenomenal world. It only points out the true nature of these things, wherein their reality consists. If it be true that the world is a spiritual system and that objective mental realities cause in us our experience of posts and chairs and bodies, then our experience of these things is precisely the same as though they existed in an extended insensate world. The pain of a toothache is just the same whether the tooth be phenomenal matter or ontological reality. There is a cause for the toothache, and idealism relates only to the nature of this cause and not to the reality of the ache. Idealism leaves our whole world of experience just as it was, only it shows us its true nature and cause.

We revert once more to the familiar illustration from astronomy, which Kant himself used. The old astronomy put the earth in the center and kept the sun moving around it. This is just what we see with our eyes and is common-sense astronomy. The familiar arguments of dualism can be brought to its support with tremendous effect. But Copernicus came along and reversed all this, putting the sun in the center and sending

[1] Professor James F. Ferrier, quoted in article on Berkeley in Hastings' "Encyclopedia of Religion and Ethics."

the earth spinning around it. What a wild outcry of surprise and consternation did this cause! How plainly did it contradict the very senses and throw the stable earth off its solid foundations and set the whole heavens swimming in confusion! How science itself refuted and resisted it! How the church raged against it and said it contradicted and destroyed the Bible, and threatened to put the thumbscrews on Galileo until he recanted! How absurd and insane did the theory seem! Yet it was true, and in time convinced and converted the world. And now that we are used to it, we find that the world goes on just as it did of old. It is true that we speak of the sun as rising and setting, but we understand the true nature of this seeming. Once in a while some good brother rises up and proclaims the doctrine that "the sun do move," but instead of his raising the laugh on us, we have our smile at him, and then go on, on the even tenor of our way. Very like this is the case of idealism. At first it seems to dissolve the world into an insubstantial mist or ghost, and great may be our aversion to it; but presently we discover that it leaves the world of experience untouched and only shows us its true nature and cause. We still speak of matter as external to us and extended and colored and hard, but we now know the true nature of these qualities as subjective experiences caused by ontological reality.

The main cause of this practical objection to the theory of the subjectivity of space appears to be a misconception of the meaning and nature of phenomenal

reality as contrasted with ontological reality. To many minds the phenomenal suggests the unreal, the illusive and delusive, a dream or a ghost. But this is not the meaning and nature of the phenomenal at all. The phenomenal is just as real as the ontological, only it is a different mode of reality. It is the experience of reality that is most vivid to us, the very world of sight and sound and touch and taste in which we live. Nothing can be more real to us than the phenomenal world, and the idealist never disparages it; it is the dualist that does this. The dualist does not appear to be satisfied with the phenomenal world; he seems to think that the world of pure experience is a place of shadows, dreams, and ghosts, where he can find no solid ground on which to set his feet and no air to breathe; and so he cannot rest until he has found some extended, insensate core of matter which he can hug to his soul. He distrusts and deprecates the phenomenal unless he can look behind it and find there some lifeless lump. This is as though the spectators at a play should refuse to be interested in and satisfied with it because it only appears on the stage and should insist on seeing the machinery behind the curtains by which it is produced; or it is as though one should refuse to enjoy his dinner unless he can see the kettles in which it was prepared. Now the idealist not only emphasizes the true reality of the phenomenal, but he also believes and shows that it is largely in this realm that we find and enjoy the wealth and warmth, the beauty and the glory of our life.

(10) It is objected that this theory turns our senses into illusion and delusion. Nothing is what it seems, but everything is something strangely and absurdly different. Would God make us with such deceitful senses and mock us with such deception? It may be said in answer to this charge of illusion that, if it is true, there is no help for it. We must try to find out and put up with what is true, and not be willing to remain in the illusion and delusion of error. We are frequently finding out that things are different from what they seemed. Was God deceiving men when he put them in a world in which the sun seemed to move around the earth? Has not God concealed many things in order that men may find them out? All truth is necessarily concealed from men until they can learn to use their faculties and investigate facts and thus distinguish reality from appearance. This is the process through which all human knowledge grows. Such illusion is not God deceiving men, but God educating men.

We are not yet prepared, however, to give the true answer to this charge of illusion and deception in the subjectivity of space. We shall ultimately see that the phenomenal objects we experience as spatial forms endued with sensational qualities are finite reproductions and copies of similar mental states or objects in the Divine Mind. The things we see are the thoughts of God. The fragrant red rose that gratifies us does exist as we experience it, but instead of existing in an extended insensate world, it exists in the mind of God, and it is the

rose in his mind that creates the rose in our mind. This fact removes the charge of illusion and deception, and shows that the only illusion grows out of a wrong interpretation of what we experience.

(11) Many minds find a special difficulty with motion, for the subjectivity of space erases this from the ontological world. The plain man is especially astonished to hear that there is no such thing as a really moving body, and asks with incredulity, Do you literally mean that I am not in motion when I am walking, and that the locomotive rushing by is not really moving? According to the theory we are considering, there can be no motion through real space, for there is no real space for anything to move through. That there is a subjective element in motion is sometimes shown in our experience. When we sit in a railway train standing by another train on a parallel track and one of the trains begins to move, we cannot at first tell whether we are moving or whether the other train is moving. Philosophers from ancient times have propounded some puzzling questions with reference to real motion, such as, How can a body in motion be at a given point even for an instant when it must every instant be moving away from that point? Motion seems to require that the moving body be, and that it be not, at the same point at the same instant. But, all these puzzles being left aside, motion in our experience resolves itself wholly into a succession of sensations, visual, tactile, auditory, and especially muscular, and all sensations, as we have seen, are subjective and

cannot give us extended realities that are like the sensational images. Lotze, in his profound discussion of space ("Metaphysics," Book II, Chapter I), shows that our sense of space consists of the series of feelings or succession of mental states through which we must pass to get from one mental state or object of experience to another, and these feelings are wholly subjective. But while phenomenal motion does not indicate moving realities, it does indicate changing relations in realities.

(12) It may be asked, What would a non-spatial world be like? Is it not inconceivable, and, if it were conceived and realized and we found ourselves in such a world, would it not frighten us and drive us insane? Several things may be said in answer to this question. For one thing, we cannot form an image or picture of a non-spatial world, for all our images are expressed in spatial terms, and these terms cannot be applied to spirit. The mind forms pictures, but it cannot form a picture of itself, and so it cannot picture a world of pure mind. For another thing, we do live in a non-spatial world in our own minds, which admittedly are non-spatial reality: do we find any trouble in getting along with them? Are we afraid to live in them? Do we start from ourselves as ghosts? If we are spirit, why are we distressed to find the whole material world is spirit also? We are in our native place in our own minds, and we need not take fright, but should gain confidence, from the assurance that even that thing we call matter is also mind. This makes the whole world our home.

Further light on this question may be gained from the world of dreams and of imagination. In our dreams we live and act in a world expressed in terms of space, and yet such space has no existence outside of our own minds and is purely imaginary. The dream world may seem just as solid and vivid and real as the world of our waking thought, and yet it is purely subjective. The mind projects the space forms of this whole world out of its own subjectivity: may it not project the space forms of its waking experience in a similar way? The same is true of the world of our imagination. The painter sees the picture in the gallery of his own imagination before he puts it on canvas, and the architect creates his building in imagination before he constructs it in steel and stone. The space forms of the imaginary picture and building are just as exact and vivid as they are in the painting and the palace: as the one set of space forms is subjective, may not the other set of space forms be subjective also? As we have no trouble living in a dream world and in a world of imagination, may we not live with equal ease and assurance in an objective world in which the space forms are equally subjective?

But the true answer to this question is that according to the theory we are considering we are living in a non-spatial world now. There is no other kind of world for us to live in, and we are already in a world of pure spirit. This fact may come to us as a surprise, as the Frenchman was surprised to discover that he had been speaking prose all his life. But so it is, according to

the theory of the subjectivity of space. Our experience of space is only a mode of our conception and not a form of ontological reality. We do not experience objective space, but we spatialize subjective experience. A non-spatial world, then, is not the insubstantial, spectral ghost-land we have been imagining, but it is just the solid world of earth and flesh we know. We need not fear we shall find no place to put our feet and no air to breathe, for these are just as real and secure in our present phenomenal world as they ever could be in an extended world.

(13) Again it may be asked, What is the need and use of such a principle as this? Why are we not made to apprehend reality as it is in its non-spatial nature and not under these apparently illusive space forms? Why are we constituted with such a mode of experience? This question takes us into the purpose of God in framing us with our present constitution, and any suggestions or guesses at truth we may make in this direction should be conceived in a modest spirit.

We have already intimated that space forms are not uncaused and arbitrary modes of our experience, but correspond with relations in ontological realities. This is a self-evident proposition, resting directly on the axiom that every change must have an appropriate cause. However diverse, then, space forms may be from the realities they represent, the forms are occasioned by the realities and change with them. This fact suggests that space forms are symbols or language

to represent and picture the activities of the mind, or the life of the spirit. As such they express the logical relations of mental entities and activities. The ideas of cause and effect and of plan and purpose are largely represented in pictorial form in spatial images. "Art," says Hegel, "has the vocation of revealing the truth in the form of sensuous artistic shape." Space is the great artist, making distinct and graphic and vivid the plan of the world, the inner logical relations that are the skeleton and framework of the world of spirit.

Space images are also the common language, first, between us and God. Whether God thinks in space terms in his own inner life or not, he certainly does express his thoughts to us in space terms. Earth and sea and sky, flower and forest, are the grand picture language in which he speaks to us. "The heavens declare the glory of God, and the firmanent sheweth his handywork." And when he speaks to us through our reason and conscience or through the personal whisperings of his Spirit, his revelations are framed in spatial images. Thus the space world is the common ground between us and God through which communication and fellowship are held and we live in harmony with him.

This space form is also the foundation and framework of the world that is common to us human beings. It is through this language that we speak and carry on our social life. We understand one another by calling up spatial images in words, or, when there are no words common to us, in spatial signs, and such signs are

understood around the world. Deprive us of space images and we would be reduced to a state of isolation and incommunicability far beyond that in which we would be if every word of our common language were lost.

But a still deeper reason may be suggested for the spatial form of our experience. Space images are the language in which we express and develop our thoughts for ourselves. Language is almost as necessary for our own inner life as for our social life. Professor Max Müller maintains that we could not think at all without words. "To think," he says, "is to speak low, and to speak is to think aloud." Without words we might still think in a rudimentary degree, but our mental world would lose definiteness and vividness and be inconceivably impoverished. Its intricate relations would disappear, and it would be reduced to a few elementary concepts.

A striking illustration of this fact is seen in mathematics. The mathematician constructs a vast system of mathematical quantities and relations. This world is wholly mental and subjective; its objects and relations are produced in the mind by its own activity. In order that the mathematician may create this world, he must invent symbols to represent his objects. Without these he could carry in his mind only a few simple relations. But by the use of his a's and b's and x's and y's and his whole mathematical apparatus, he carries his mental creations to an indefinite extent and elaborates a system of enormous intricacy, great beauty and practical in-

finity. In these mental creations the human mind exercises its highest genius and appears to approach the creative work of God. This mathematical world would not be possible to our minds without these symbolic helps. And yet the symbols are no essential part of the mathematical relations: they represent the reality but are not the reality. They are only modes of picturing the relations so as to make them easily comprehensible and manageable. So, also, language is not thought, but only represents thought, and pictures are not the realities they represent, but only images of them.

Do not these illustrations give us a hint of the nature and use of space? What is this but a symbol and language to give definiteness and vividness to our thoughts and enable us to carry them out into profound and complicated systems? We have thoughts and feelings in which space images scarcely enter, but these are comparatively elementary and vague, although very important, and if our mental life were reduced to these, it would fall to a low level, even to a far lower level than if it were deprived of language. It is the intuition of space that furnishes the mind with images or endows it with its picture-making power. Space is the framework and coloring of imagination. It is this that enables us to give our thoughts a spread-out form and frame them in definite outlines of endless shapes and depict them in rich colors. And thus it is our space intuition that turns our imagination into a picture gallery hung not

only with nature's masterpieces of field and flower, sea and sky, that is, with God's thoughts, but also with pictures of our own thoughts. It illustrates and illuminates our thoughts as pictures illustrate a book. We try to get our subtlest and most abstract thoughts into images or spatial pictures, and do not think we have clearly grasped them until we have framed them into this form. Space images make our thought-world enormously more intricate and delicate in its relations and vastly richer and more splendid. Take away our space intuition, and our mental life would be infinitely impoverished and rendered vague and dull, a bleak and barren world.

Furthermore, the intuition of space, as it gives form to our touch-movement sensations, is the language in which we chiefly express our volitions and sense of liberty and power. We would still have some sense of liberty without the sensation of motion, but it would then be greatly restricted. The sense of space as giving form to our touch-movement sensations lets our will out into a boundless field, full of strenuous action and of all possibilities of attainment. Space is thus the language in which the will speaks, the symbol by which it builds its vast world of action.

Professor A. T. Ormond has worked this suggestion out in a fruitful way. Space, according to his view, is our experience of the repulsive forces resident in the germinal units of the spiritual world, and it expresses their resistance to our control. In proportion as we can exercise control over things, they seem near to us. We

have the greatest degree of control over our own mental states, for they are immanent in our minds and immediately subject to our will. As a consequence they seem nearest to us, so near, in fact, that the spatial relation vanishes and our thoughts become constituent elements of ourselves. The next nearest sphere of control is our body, which is responsive to our will only slightly less than our thoughts, and so seems almost as near to us. From the body things shade off in ever enlarging spheres of lessening control until they almost entirely escape us and seem indefinitely far. Yet if we could exercise the same immediate control over things beyond the sea, or even over the sun and stars, as we can over our bodily organs and our thoughts, the one class of objects would seem as near to us as the other. But our control over objects decreases as the distance increases, and it is this decrease of control that causes or expresses itself in the seeming increase of distance. We are where we can act. God's control over things is absolutely immediate and universal, and this is his omnipresence and omnipotence. Gravitation decreases as the square of the distance, and thus obeys the same law as our will, and is thereby assimilated to will. The significance of this fact will be appreciated when we come to study the world as a manifestation of will, in Chapter VIII.

In line with these speculations is the suggestion that, as our space intuition is subjective in, and relative to, our minds, it is possible that there may be other minds con-

stituted with different space intuitions. We experience space in three dimensions and can have no sense experience of any other dimension. But the mathematicians extend the principles and analogies of the three dimensions of length, breadth, and thickness into a fourth dimension, and so on into an *n*th dimension. These hyperspaces have been profoundly investigated and worked out into hypergeometries that are thoroughly consistent and wonderfully interesting and beautiful.[1] The metaphysician, with his doctrine of the subjectivity of space, has room in his world for the mathematician's hyperspaces in possible minds that are constituted with space intuitions to produce them.

This immense power and use of the space intuition as the language of our thoughts for communicating with God and with one another and for the expression and enrichment of our own inner life, appears to be the reason why it enters into our subjective constitution.

(14) Perhaps after all this reasoning the plain man may bluntly ask the author whether he really believes in the subjectivity of space, and demand a categorical answer; and perhaps he has a right to ask the question and expect a frank reply. The author's personal opinion is of slight consequence to any one; the mere authority of even the greatest thinker is of small weight; only reason has a right to be heard in this matter, and these reasons must speak for themselves. Every one must

[1] A clear exposition of these higher geometries will be found in "Science and Hypothesis," by H. Poincaré.

look at them for himself and come to his own conclusion: only he should endeavor to look at them with unbiased judgment and strain his vision to see the truth. The author makes bold to say this: these reasons seem to him to establish the subjectivity of space as against any other theory. This view stands the test of our critical thought, and any other goes to pieces under criticism. Yet one may hesitate to affirm positively and finally that this theory represents absolute truth. "The world is too much with us" in philosophy as in religion, and at times we must doubt whether we have actually lifted the veil that hides the mystery of existence. Nevertheless, we must follow our thought, and this leads to the subjectivity of space; and therefore we hold this in our present light as our nearest approach to the nature of ultimate reality.

CHAPTER V

THE SUBJECTIVITY OF TIME

THE subjectivity of space carries with it the subjectivity of time. If there is no extended world of matter, but only a world of spirit and experience, then time as an external succession of extended things has vanished along with such things. Idealists, therefore, almost without exception, group space and time together as subjective experiences. Kant applies substantially the same arguments to time as to space in proving them intuitions of the mind.

They do belong together as subjective states of mind, but there is a fundamental difference between them, which Kant recognized by denominating space as the sense of the outer, and time as the sense of the inner, life. Space is the form which consciousness imposes on its sensational objects, and has no other existence. There is nothing really extended either in the mind or out of it, and extension is only a projection of the mind's own consciousness. Time, however, is not a form or mode imposed by the mind on its own experience, but is an inherent and essential relation of its inner states. These states of experience constitute the soul, and are the only reality we immediately know. An important fact about these states is that they exist in the time

relation. They are successive; they begin and they cease to be. One is followed by another, and taken together they form a constant stream of succession. This fact of inner succession is one of which we are immediately aware. It is not the result of reasoning or inference, but is an intuition. Nothing can be clearer and surer to us than that our thoughts begin and continue for a period of duration and then cease, or dissolve into others. Succession clings to our subjective experiences as an essential and ineradicable relation. We cannot erase or expunge it from our experience. All of our experiences are successive, and we can no more get rid of this relation than we can get rid of thought itself. Our experience of space is not spatial, but our experience of time is temporal; that is, our experience of a mile is not a mile long, but our experience of an hour is an hour long. Space is a phenomenon to the mind; time is not a phenomenon, but a reality in the mind itself. Time is our experience of succession, and if there were no succession in our minds, our thoughts could neither begin nor end, and our consciousness, instead of being a ceaseless flow or stream, would stand fixed in rigidity.

The subjectivity of time is further seen in the fact that it is not a regular flow at a fixed rate, but varies widely and surprisingly with the kind and the degree of our interest. The period we call an hour or a day does not always seem to be of the same duration. If we are enjoying a pleasure, it may seem incredibly short, and

if we are suffering intense pain, it may seem intolerably long. Listening to a sermon, we may think half an hour interminable, and listening to a song, we may think it all too short. So absorbed may we be in a subject or experience that we do not note the lapse of time at all, and a whole evening may seem as a moment, and a week or a year as swift as an arrow. These familiar experiences show us that time is not a fixed rate of succession, but is relative to our interest and is rapid and short, or slow and long, according to our attention to its flow.

Further light is thrown upon the time relation by a consideration of the time-span of our consciousness, a subject that has been developed by Professor Josiah Royce in his work on "The World and the Individual." The interval during which an object is present to our consciousness is not an absolute instant or mathematical line dividing the future from the past, for such instant or line would be no time at all, and nothing could be known in it. There is an appreciable interval during which consciousness holds before itself all the objects or the whole succession of objects in the interval. Professor Royce estimates this interval or "time-span" as "a very few moments" or "seconds." The succession of events in this interval must not be either too fast or too slow in order that we may perceive them. Thus the several notes of a musical phrase or the words of a sentence are present to the mind, not only successively as they flow from the future into the past, but also simultaneously while the mind grasps them as a whole

and realizes their meaning. It is the length of this time-span that determines the type of our consciousness as to what successions it can grasp and what is our sense of time. But our time-span is not a period that is necessary and universal for all minds, but is relative to us and might be widely different. We can conceive an infinitesimally short or an immensely long time-span that would perceive very rapid or very slow changes not perceivable by our time-sense, and this would give a very different type of consciousness. "Suppose," says Professor Royce, "that our conciousness had to a thousand millionth of a second, or to a million of years of time, the same relation that it now has to the arbitrary length in seconds of a typical present moment. Then, in the one case, we might say: 'What a slow affair this dynamite explosion is!' In the other case, events, such as the wearing of the Niagara gorge, would be to us what a single musical phrase now is, namely, something instantaneously present, and grasped within the arbitrary present moment. Such relations to time would be no more arbitrary, no less conscious, no more or less fluent, and no more or less full of possible meaning, than is now our conscious life."[1]

Now let all limitations be removed from this time-span, or let it be extended to eternity, and we have a consciousness that grasps all events from everlasting to everlasting and holds them together in their unity, the omniscient consciousness of God. "For a thousand years in thy

[1] "The World and the Individual," pages 227–228.

sight are but as yesterday when it is past, and as a watch in the night." In such a consciousness there is succession, but no sense of time after our type, for all events, though they are logically successive, are also simultaneous, or held together in their unified meaning; and to God eternity is an eternal Now. In the scale of being there is room for time-spans of any number and length, each determining its own type of consciousness. The sense of time, therefore, is not the same for all minds, but varies with the breadth of their time-span.

As we interpreted space as the extent of our experience of control, so we may interpret time as the extent of our experience of succession. The present is the point of our most intense experience, and events seem distant from us in the past in proportion as they grow less and less vivid and fade into dimness and oblivion. But if past events, however dim or wholly forgotten they may have become, were again realized in their original intensity, they would be just as present to us as they ever were, for they would repeat in our experience all the sensations and thoughts with which we first experienced them. In like manner, if it were possible for us to experience the events of the future with the same vividness as that with which we shall realize them, they would now be present to us. A longer time-span means that events remain vivid in experience under a wider view or grasp of consciousness; and in God's mind all things continue in unchanging vividness from eternity to eternity in one ever-present Now. As God's immediate

and universal experience of control is his omnipresence and omnipotence, so his immediate and universal experience of succession is his omniscience.

All of these considerations show us that time is a mental experience, subjective in mind, and has no other existence. Yet, while time is real, we may easily interpret or conceive it in an unreal and illusive way. We must not think of time as something that stretches out behind us in the past and before us in the future. There is no such spatial world it can reach through. Time is always present, the experience of succession, and there is no existing past or future except as a thought-relation in the present.

CHAPTER VI

SUBJECTIVE REALITY

Flower in the crannied wall,
I pluck you out of the crannies,
I hold you here, root and all, in my hand,
Little flower — but if I could understand
What you are, root and all, and all in all,
I should know what God and man is.

— TENNYSON.

"GIVE me where I may stand," exclaimed Archimedes, "and I will move the world." "Give me a bit of reality," says the metaphysician, "and I will show you the universe." This *pou sto*, or standing-place, where we may rest our lever to move the world, this original and representative bit of reality that will reveal to us the universe, we find in our own soul. "I think, therefore I am," said Descartes, and thus found in himself a solid ground of reality on which to stand and a center from which to sweep the circumference of the universe. We may go far off for what is near at hand; we may vainly search the earth and the heavens for what is nigh us, even in our heart.

Let us now take a look into our own soul that we may see in this microcosm of the self the image of the macrocosm of the world, as in a dewdrop we may see all the mechanism and wonders of the sun. This chapter only

aims at presenting the slightest elementary sketch map of the large and wealthy field of psychology, which in recent years has been the subject of such fruitful study and has given birth to a literature so voluminous and rich.

1. The Soul's Knowledge of Itself

The soul knows itself. It is immediately aware of its own states and of itself as knowing these states. It uses no intermediate means, such as the senses, in knowing itself, but is in direct relation with the object known and is itself the object known. These mental states are the only object thus known to us immediately. All external objects are known to us mediately, through their play upon our senses, producing in us their phenomena. It is by a process of inference that we pass from the subjective phenomena to the objective noumena, an inference that is universal, necessary, and instinctive, but none the less an inferential and interpretative process, as we shall see later on. But it is by no such process that we know the subjective phenomena and all subjective states themselves: they are known by direct intuition.

As a consequence of this fact, our knowledge of the self is the clearest and most certain knowledge we have. This knowledge may quickly become mixed and muddied with inferences that are widely wrong, but our awareness or consciousness of our mental states themselves is absolutely sure and free from error. We may not be able to describe these states in words, we may be egregiously

wrong in our interpretation of them, but our experience of them is an ultimate fact. If we do not know the soul, we do not know anything; and if we do not know anything else, we do know the soul.

From this intuitive knowledge of our personal self, there follows the great conclusion that in the soul we know reality itself. We know external objects through the mediation of the senses that present to us phenomena or appearances, which we endeavor to interpret and, if possible, resolve back in their noumena or realities, — a process that is the task of metaphysics. No such process of mediation takes place in the soul's knowledge of itself, and therefore in this self-knowledge there are no phenomena, but only noumena. Our experiences, thoughts, feelings, volitions, considered in themselves apart from their objective reference and interpretation, are not appearances to us of realities that lie back of them, but are just what they seem. We are not looking at them through senses or processes that can transform them into phenomena, but we are ourselves these very states. They do not, therefore, appear to us under any transformed shape, but they exist in consciousness in their own form. They are not something apart from consciousness which consciousness is viewing, but they are consciousness itself. They are not symbols or shadows of something beyond them, but are ultimate reality. Here we reach essential reality, a core of pure being that cannot be resolved into phenomena or illusion or anything else than itself.

This is a fact of tremendous importance in our search for reality. The metaphysician has often ransacked the heavens for the secret of being while stumbling over it in his own soul. If our conclusion is correct, we have in our own soul the point where we may rest our lever that will move the world. Here is the bit of reality that will show us the stuff of the universe. In plucking this "flower" from its "crannied wall" and knowing it "root and all," we "know what God and man is." 'Say not in thine heart, Who shall ascend into heaven? Or, Who shall descend into the deep? The world is nigh thee, even in thy mouth and in thy heart.'

It may be remarked, in passing, that the view that is taken of the relation of our subjective states to reality is one of the turning points in the history of philosophy. Kant maintained that our conscious states are phenomena of an unknown and unknowable "thing-in-itself" or ultimate reality, the things of nature being in the same way phenomena of unknowable "things-in-themselves" — which was the view of Herbert Spencer. Descartes started with his thinking self as a bit of indubitable reality, and Schopenhauer firmly grasped the fact that we know reality itself in our own internal states of idea and of will (in his "The World as Will and as Idea"), and these thinkers made it the corner stone of idealistic philosophy, where it remains to this day.

Our conscious states exist in a relation of succession, or "stream of consciousness." The word "stream" in

this connection is figurative. We must not suppose that anything flows in a stream in the mind from one point to another, for there are no spatial points in the mind. All that is meant by this word is that our mental states exist in succession, and it expresses this fact with picturesque vividness.

One or two important features of this stream may here be considered. It varies in breadth and depth. Its breadth varies with its development and the extent of its knowledge and culture. Education, books, science, art, philosophy, religion, broaden the stream of the soul. Its depth varies with the degree or intensity of its consciousness. When all the powers of the soul are aroused, as when we are stirred with burning thoughts and intense feelings, the stream of consciousness is alive to its lowest deeps and rises to the flood tide of its intensity. At other times our consciousness grows dim and indistinct and its tide falls to a low level. In sleep it seems almost to disappear, and under the power of disease or of an anæsthetic it seems absolutely to vanish and leave not a trace behind.

This raises the question of what becomes of our consciousness in these conditions and of whether there is an absolutely unconscious deep in our minds out of which our conscious thoughts rise and into which they sink. The theory of "unconscious cerebration" and of a "subliminal self" has been a favorite one with some psychologists. It is contended that the mind keeps working on in a wholly unconscious state, rising to the

edge or threshold of consciousness in dreams and emerging into full self-consciousness in our waking hours. But the very nature of mind as far as we can know it is consciousness, and "unconscious mind" seems a contradiction in terms. It is sufficient to suppose that consciousness falls to a low level without ever losing its essential nature. In sleep the mind ordinarily keeps working on in some degree, as is experienced in dreams; and even in the deeper sleep of the anæsthetic we may suppose there is still a dim thread of consciousness. But the stream has sunk to a mere rivulet, and the links of memory are too slender and frail to preserve any recollection of it. Mind is still conscious to its lowest deeps, though such consciousness is elemental and its memory evanescent.

Thus the stream of consciousness is like a river, rising in a tiny spring in far-away hills and gathering into itself tributary streams of knowledge and experience by which it fills an ever broader channel; and at times swelling into a great flood and at other times dwindling to a rivulet in the bottom of its bed. But as the river through all its changes is still water, with all the qualities of water, so the soul through all its variations in breadth and depth is still mind, with the qualities of mind. How the soul's stream of consciousness thus swells to a surging flood and shrinks to a slender rill is a mystery we cannot fathom.

At this point the question arises: What is the soul? Is it simply the stream and the sum of our conscious

states in their unity? Or is there some substance of which these states are the attributes, some entity back of the states, some core of being in which they inhere? Is the soul pure thought, feeling, will, or must there not be something that thinks and feels and wills? Our first thought is likely to be that of course there is something that thinks and feels and wills, and that this something is an entity apart from or other than these states. But modern psychologists and metaphysicians generally discard the theory of such an entity apart from consciousness and view the stream or unity of our experience as the soul.

The matter may be illustrated by an analogous case. Does a material thing, such as an orange or a stone, have any entity or substance other than its qualities? It is possessed or consists of the qualities of color, sound, odor, taste, and touch: if we could abstract these each and all so that the orange or the stone would no longer affect us in any of these ways, would anything be left? What would that be which we could not see, hear, smell, taste, or touch, which could not resist us or in any way affect us or make its presence and power known? The most elusive material thing we know is the luminiferous ether, and yet it affects our senses powerfully. It would seem that an entity that cannot do anything is about the same as no entity at all. Now the case is somewhat similar with the soul. We know the soul as thought, feeling, and volition. If we abstract these states, what is left? Is there left an entity that cannot

think, feel, or will, or in any way act so as to make its presence known? Then it would seem that such an entity could play no part in our life, and would be the same as no entity at all.

But still the question recurs: What, then, is the soul? What is it that thinks and feels and wills? The psychologist answers that the soul is our experience in its unity; it is just the soul we know, and we have no knowledge and no need of any other. It is the nature of the soul to be conscious experience, and when we have found or experienced this, we are not to try to peep behind the scenes for some hard core or bony skeleton there. The soul is experience clear back and down through all its chambers and regions, and there is no insensate substance to which it clings or unconscious deep into which it sinks. Wherein consists the unity of our conscious experience, how our soul can exist as a stream or succession of ideas, feelings, and volitions is, indeed, a mystery. But we do not help this mystery by bringing in an unknowing, unknown, and unknowable something and planting it as an unrelated and foreign core or lump in the midst of this conscious stream. If consciousness cannot stand as a reality in itself, but must have another reality or substance to stand under it, then this reality must have another substance to stand under it, and so on in an endless regression. The conscious reality we do know, but the unconscious entity we do not know and do not need, and therefore we do not posit its existence.

2. The Fundamental Faculties of the Soul

A single introspective glance into the soul shows us that it is not a level and monotonous country, but is diversified into many features and is a complex and wealthy world. It falls at once into three fundamental faculties or modes of experience: thought, feeling, and will.

(1) Thought is the perceptive and constructive faculty of the mind. It receives the stimuli of the senses and shapes them into objects of thought, or mental constructs; it builds its own materials into ideas, ends and means, purposes and plans; and it discerns or constitutes the meaning of its objects of thought.

In this process the mind imposes its own regulative principles or constructive ideas on its sense materials, after the same manner in which it imposes upon them its intuitions of space and time. The sense materials pour in upon the mind in an unorganized mass, a tumultuous and chaotic flood, and the mind must mold them into form and meaning and build them into system. How does the mind get the idea of unity? Not from these manifold and confused sense impressions; but it has the idea or principle of unity in its own unitary experience or consciousness, and, having this idea, it imposes it upon its sense impressions and reads them in their unity. In a similar way, the mind would not be able to understand plurality in sense materials if it did not already have this idea in its own manifold experience.

From sense materials the mind could never know the principle of causality; it could only be aware of succession. But it knows cause in its own will, and effects in its own consciousness, and it transfers the idea of causality thus internally derived to outer successions.

So it is with all the regulative principles or basic ideas of the soul. The mind can see outwardly only what it first sees inwardly. Consciousness necessarily supplies its own molds in which it casts into form the inflowing stream of sensation, and thus it gives shape and meaning to its sense materials and builds them into an orderly and significant world. These regulative and constructive molds of the mind are not merely names or concepts of classes into which the mind groups its experiences, but are fundamental modes of its operation, or are its dynamic constitution.

Kant enumerated twelve of these inner principles or "categories" of the mind, arranging them in groups of three under the four heads of quantity, quality, relation, and modality. His classification was faulty, and, in truth, he paid little respect to it himself. But the important point in this connection is that Kant was the first to show that these categories are constitutional in the mind, the necessary contribution which the mind itself makes to thought and to world-building. This is his immortal discovery in philosophy, and it is a principle that stands and must ever stand immovable, for it is rooted in the foundations of the mind itself. It is also a principle that will be seen to be of the deepest and

most far-reaching significance when we come to the process of world construction and interpretation.

(2) Feeling floods the objects which the mind thus constructs with their tone of pleasure or pain and with the qualities of interest and worth, thus imposing its moral categories upon them and determining their value. If the objects of the mind were pure blank intellectual perceptions or constructs, the mind would have no interest in them, no craving or desire with reference to them, would perceive no worth or obligation in them, and would be equally indifferent towards them all. But these objects appeal to and stir up the emotions, cravings, desires, impulses, and passions, and thus begin to throb and glow with interest, worth, obligation, passionate impulse, or the reverse of these qualities. They burn with joy or grief, hope or fear, love or hate, and thus constitute all the many colored variety and wealth and splendor of our emotional life. And it is these emotions that are the motor power in objects that drives them into action.

(3) The will is the executive faculty of the soul. It gives the decision or command that lets the motive powers loose and sends thought and feeling rushing into deeds. It is the soul in action, and it is this sovereign power that achieves all the ends and attainments, heroism, triumphs, and glory of our human world.

This trinity of nature in the soul is deep-seated and all-pervasive in its experience. It is an elementary and fundamental classification of our inner life, and is under-

stood on the street as well as in the schools. It needs only to be remarked that we are not to suppose that there is anything in the nature of a spatial division in the soul corresponding to these three functions. They are each a function of the whole soul: the soul in its indivisible unity acts in these three modes. These fundamental faculties of intellect, sensibility, and will in their totality and unity constitute our personality.

With this general view of the soul's experience before us, we may now take a more detailed view of this inner world.

3. Objects of Experience

An object of experience is anything that engages the attention of the mind. The general field of consciousness breaks into a great multiplicity and variety of parts, and any one of these may be isolated from the others and viewed as a unit. Such objects of experience are primarily states of mind, or objects of thought included within consciousness, and may be viewed as such, apart from any objective reference they may have. In the present chapter we are considering these objects of experience as subjective states, and their objective reference will come up in the next chapter. There are various kinds of objects of experience, and we shall enumerate the most important ones.

(1) First in order of time are objects of sense perception. The excitations of the senses cause objects to arise in the mind. In response to these influences from

without, the mind erects and projects the external world. These resulting sense perceptions or states of consciousness are phenomena when viewed in relation to their objective causes, for they are appearances of unlike realities. But they are noumena or ultimate realities when viewed in relation to the mind itself, for they are states of consciousness which are realities in themselves and not in appearance.

The mind shapes its sense excitations into objects under the action of the categories, as already explained. An apple stimulates the eye and excites in the mind its visual image of form and color; the other senses contribute their several reports or sense images of the apple, and it acquires sonance, odor, taste, and resistance. These five sense images all blend into a unity, which is the mental construct of the apple, or the apple itself as we know it. All the things we know, including the whole world of nature, are thus constructed in the mind and are states of experience. As an object is perceived by the senses, it falls into the framework of, and is illuminated by, the mind's existing stock of knowledge, a process that is called apperception. The new knowledge also reacts upon the old. The two at first may be antagonistic and strive desperately to expel each other, but at length they work themselves into mutual adjustment and harmony. Our sense perceptions are thus absorbed and assimilated into our general mass of knowledge, and in this way the mind grows. Every object, from the first germ of its sense perception to its finished construct, is a growth.

(2) Next in order are objects of memory. The mind has the power of reviving experiences that have faded and vanished. These revived states are dimmer and weaker than their originals, but they are as truly objects of experience as the originals themselves.

(3) But the mind not only contains objects that were impressed upon it or excited within it from without: it has creative powers of its own; and next in order are objects of constructive thought and of imagination. Constructive thought reasons upon the materials in the mind, sifting and arranging them, comparing them and combining them into judgments, drawing inferences, tracing causes and consequences, and thus reaching new conclusions and building systems of science and philosophy. We have already remarked upon the mathematical world as an instance of construction by the mind approaching absolute creation. The mind posits a few principles and definitions and proceeds to build them into a vast world stretching away into the infinite. Such mathematical relations are objects of pure thought, and to think them is to create them, a process which is probably the nearest human approach to divine creation. Music is another vast and grand world which is built by constructive thought. Imagination is also a powerful architect of objects of experience. It takes all kinds of materials, sense perceptions, ideas, feelings, and frames, and molds them into new forms after its own ideals, and thus result all the achievements and glories of literature and art.

(4) The next in order are objects of meaning. Objects of sense perception are symbolic representations of objective realities, and the function of the mind in them is only to secure accuracy in the sense process, so that the inner will correspond with the outer as closely as possible. This process of reproduction may be viewed as one of mental mechanism, having only to make an exact copy, as a photograph reproduces a likeness. Memory objects also approach their ideal as they faithfully reproduce their originals. But in the building of objects of constructive thought and creative imagination, there is no pattern to follow, but these objects are shaped by the mind itself, and a large subjective element thus enters into their construction. This subjective element becomes dominant and constitutive in objects of meaning. Meaning is what we intend an object to embody and express. A simple instance is the meaning of a word: such a meaning depends on our definition of the word, what we determine it shall signify. In forming a word, we create an object and embed its significance and purpose in it. We erect the object in the mind as the embodiment and expression of an idea, belief, intention. The whole world of language, including mathematical symbols and all systems of notation, is such a creation. Our principles of character and conduct, moral and spiritual ideals, political platforms, religious creeds, friendships, patriotism, literature, and art, are objects of meaning in that we set them up and determine what they shall be. Civilization largely consists in meaning, and

this is a measure of its progress. A sense object, such as a bank note or a book, may be the same to a savage and to a civilized man, but it is a vastly different object of meaning to the two men. Our inner life is largely meaning, and meaning is something we make.

(5) Closely related to objects of meaning are objects of will or purpose. When a meaning assumes the definite form of a purpose, we have an object of will. Such an object is a deed which the mind resolves to do, an end which it is determined to reach. It may be trivial and brief as a passing whim, or weighty and far-reaching as a life ambition; and it may be so instinctive that it scarcely emerges into consciousness, or it may be the most vividly conscious and clearly reasoned purpose of the soul.

An object of will, like all other objects of experience, grows. It starts with a germ of perception or plan, impulse, appetite, or passion, and then grows by gathering into itself all the reasons that support it, all the materials in the mind and heart that have kinship with it. Mental associations feed it. The mind puts an object of will under the focus of attention, and then all kindred thoughts, feelings, desires, purposes, gravitate towards it; it acts as a magnet to draw them to it, and thus it increases in mass and weight and power until it overcomes all opposition and rushes into action. A volition is thus a desire or purpose that grows until it is stronger than all antagonistic motives and tips the scale in its favor. The mind has large control over this pro-

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cess, for it can concentrate its attention on an object of will and intensify the reasons for or against it, and thus do much towards determining the scale one way or the other.

(6) A highly important class of objects are objects of feeling. Feeling is an element that enters into the constitution of all objects of experience, but they may also be viewed with special reference to this element. Some objects are almost (but never altogether) constituted of pure feeling, as vaguely located sensations of physical pain; others, such as the emotions and sentiments, are the accompanying excitement or tonal coloring of thoughts and purposes, the deep rich vibrations emitted by the sounding board of feeling when the strings of thought are struck. Some objects have as their main purpose the embodiment and expression of feeling. The means by which friendship and affection are manifested, such as loving gifts and words and deeds, are predominately objects of feeling. The simplest thing, like Wordsworth's "meanest flower that blows," may "give thoughts that do often lie too deep for tears." Objects of art aim at the expression of feelings in their highest, most refined, and most powerful forms. Poetry, painting, sculpture, music, are rich and splendid embodiments of feeling that send waves of emotion surging through all souls that are tuned into harmony with them.

It is these feelings, as we have already remarked, that give objects their interest and worth and obligation.

There is no object so coldly intellectual that it does not have some slight warmth of feeling that makes it interesting to those who have affinity with it; and other objects, such as patriotism and friendship, derive their power from the passion that burns in them. Conscience, in its emotional element, is the feeling of moral worth and obligation. Religion is the feeling of dependence on and fellowship with God. These objects have intellectual outlines that give them shape and feature, but it is feeling that fills out these skeletons with flesh and blood and makes them warm and attractive with life.

(7) The highest class of objects, from some points of view, are generalized objects, or universal laws. An object may be a particular and even a unique thing, as a particular horse or the greatest race horse in the world. But an object may also stand as a type of other objects of the same kind or class, and then what we affirm of it becomes true of all the members of its class, and this fact or relation is a generalized object, concept, or law. How can we thus pass from the particular to the general; on what basis can we rest a law? This question is of immense importance, for it is by this process that we form the practical rules for our daily guidance and also lay the foundations and build the structures of our sciences. From one instance of experience within our own minds, possibly occupying only a moment, we draw a conclusion that profoundly affects our whole life or spin a web of thought out over the whole universe; from the narrowest basis in our brains we rear a fabric

that overtops the stars. This is the greatest power and most splendid achievement of the human mind, and must ever affect us with wonder. Any element of doubt inserted into the base of this fundamental process must have a far-reaching influence, possibly throwing our conduct into confusion and shaking down the very heavens, as a minute error in the beginning of a mathematical calculation may cause an enormous error in the end.

There are several ways in which we make this great transition. First, by definition and constitution of the generalized object. We have seen that objects of meaning are what the mind constitutes as its objects. It builds the object according to its own plan and specifications; and having built one it can affirm that what is true of that archetypal object is true of all belonging to the same class by virtue of their constitution. This means of reaching generalized objects or universal laws prevails in the world of pure thought, such as mathematics. A circle is constituted by definition as a figure having certain specified relations, and it follows that what is true of one such figure is true of all in their very nature or constitution. This principle applies with absolute universality and infallible certainty in the vast and beautiful world of mathematics, and such generalized objects are the most certain we know. Science itself can claim infallibility only as it brings its results into mathematical form.

Another way in which we reach generalized objects

or laws is through the principle of cause and effect. It is an intuitive and necessary belief of the mind that the same cause acting under the same conditions will always issue in the same effect. By no possible process of thought can we think the operation of a cause through into its effect and conceive of its doing different things under the same conditions. This is the chief scientific means by which we discover laws in nature. Having found the operation of a cause in nature, we rest on it as a general law and with the surest confidence sweep it through the entire heavens. While this principle has its basis in a necessity of our thought, yet its application is complicated and rendered doubtful by the difficulty, and sometimes the impossibility, of determining just what the cause is and whether the same conditions are always present. This doubt often infects our practical rules of conduct and sometimes our accepted laws of nature.

Still another method of reaching general laws is that of experience, or trial. When we find that what is true in one case is true in a similar case and in many cases, we begin to think that it is true in all such cases, and then we trust it as a law. Proverbs are the expression of what has been found practically true in conduct, and science rests many of its accepted laws of nature on this basis. Even so solid a law as gravitation has no other guarantee than our experience. We find all the masses of matter we know obeying this law, but we do not know that it is absolutely universal. Laws resting on our experience are infected with the possibility of error more

deeply than any other kind of generalized objects, and yet these form a large part of the practical basis of life.

Although objects of experience may thus be classified and considered separately, yet it is important to observe that they do not exist as sharply divided classes, but these various kinds shade into one another; or, rather, perception, memory, creative thought and imagination, meaning, will, feeling, and generality, are elements that enter into the constitution of all objects in different degrees and combinations. There is hardly an object in which every one of these elements is not present, at least in some slight degree. Perception gathers the raw material which thought works up into outline; this skeleton is then filled out with memory and imagination, and grows into meaning and will, and is flooded with feeling, and thus leaps into action. We may classify these objects according as one or another element predominates in their constitution, but all these elements are present in varying degrees in each object, and their complex unity makes the rich and glowing and powerful thing we know.

The soul may thus be viewed as a workshop or factory equipped with an elaborate outfit of complex and delicate mechanisms for the construction of objects of experience, all its faculties and activities working together for the manufacture of these products; or as a fertile field sown with a multitudinous variety of seeds, which sprout and blossom and ripen into objects of experience, which may then wither away.

4. General Characters of the Soul

There are now some general characters of the soul which it is important we should notice.

(1) The soul is a unit. At first sight its experiences may seem as multiform and variable as the weather. But even the weather is inclosed in the envelope of the atmosphere, and the soul has its unity. All its faculties are modes of one consciousness, and all its experiences cohere together. There are no real breaks or gaps in its diverse experiences, nothing like isolated compartments or cells in its structure. The puzzling facts of "multiple personality" and "split-off consciousness" are abnormal states that do not affect the general truth that normal consciousness is self-evidently unitary. The unity of the soul is the self that is the center of all its states, the subject of all its experiences. However variously this self may exercise itself, however violently it may be strained and shocked under the impact of conflicting and warring motives and emotions, its unity is never ruptured, and it abides as one consciousness and one soul.

(2) The soul is subject to growth. Its origin is wrapped in mystery, but it emerges out of the vast deeps of being as a germ and gradually unfolds through all the stages from infancy to maturity. It grows by the absorption of mental material or suggestion, which it works up and assimilates by its own activities; and thus the dim consciousness of the babe grows into the vivid and profound consciousness of the poet and philosopher.

This growth is the law of the soul as a whole and also of its separate faculties and objects of experience. Each faculty, as perception and memory, expands through exercise, and each object of experience grows from germ to fruit. This growth is subject to the law of continuity, each existing state of experience springing out of preceding states, and all states follow in unbroken succession. The soul in its mature growth is thus a product of evolution, and is the primary and classic illustration of the working of this principle.

(3) The soul is subject to law. Our first impression of our inner life may be that it is a scene of chaos in which state succeeds state in tumultuous confusion. But the more we study it, the more we find it follows an orderly line of succession, and we may discover that even its wildest whim is not without its mental connection and cause. Our associations of ideas at first seem as lawless and causeless as any of our mental states, and yet the psychologist has reduced them to a few controlling principles, and never doubts that the most erratic, grotesque, and inexplicable association is yet connected with the contents of the mind by some thread of rational explanation. Our perceptions grow into constructs according to rational laws; and memory, imagination, judgment, and all the faculties and activities of the mind have their principles of operation. The whole science of psychology is based on this assumption, and without it any science of the mind would be impossible. Equally impossible without mental laws would be any practical

use of the mind. It is because the mind works according to law that we can understand and direct it, just as for the same reason we can turn nature to our use, which we could not do if it were a chaos.

In saying the soul works according to law we do not mean that it acts under external necessity or is driven by force from without, as we may conceive the material world to be: we mean that it acts from reason, under the play of its own motives and judgment. The soul is a law-saturated organism down to its roots and germ. This makes it a rational world. We may have difficulty in defining the nature and operation of mental laws and in harmonizing them with other aspects of the soul, but they are an ultimate fact in our experience.

(4) The soul is subject to habit. Habit is a fixed way of acting as the result of repetition. A piece of paper, having been folded once, will more easily fold along the same crease again. All mental faculties and operations are subject to this principle. Two ideas, having been associated once, will tend to cling together, so that when one comes into the mind, the other may come adhering to it; and the association of these ideas may grow into a habit so strong that they become practicably inseparable. Memory is a habit, the reviving of an image or idea once making it easier to revive it again. A judgment having been formed, the mind tends to form similar judgments, and thus habits of belief grow. An emotion having been experienced, the soul is apt to experience similar emotions under similar excitations, and thus

emotional and æsthetic habits are formed. The will, having cast itself in a deed, is likely to act in that way again, and thus habits of action grow. Moral and spiritual experiences tend to repeat themselves, and thus character is created. Under the law of habit the soul crystallizes into a fixed character, which may become its final disposition and destiny. By far the greater part of our life, language and learning, physical and mental skill, conduct and character, work and worship, becomes cast and cooled in the mold of habit. This fact is of tremendous practical importance, both for good and for evil.

(5) Notwithstanding the fact that the soul is subject to growth and to law and to habit, yet it is still free, a self-acting and self-directed personality. The freedom of the soul is its ability to choose and act in accordance with its own nature. The soul is never driven to choose against its will, but in its hardest fight and sorest strait, in the very darkest tragedy of its trial, it takes that course which in its judgment seems best. Though all worlds seem to be reeling and wrecked around it, yet it sits on its own throne and sways its own scepter.

> It matters not how strait the gate,
> How charged with punishment the scroll,
> I am the master of my fate,
> I am the captain of my soul.

Yet in its every choice the soul never escapes the law of its own nature. Law and liberty are thus not mutually antagonistic and exclusive in the soul, but are harmonious and coincident. It may be easy to array them against

each other and difficult to harmonize them in theory, but we are conscious of both in our experience and of their coincident working. This liberty of self-action and of self-government is a fundamental fact of our personality and the necessary basis of our moral responsibility and life.

(6) The soul is teleological in its nature; it foresees and shapes its action by and towards ends. It sets up patterns and ideals after which it fashions its products. It works according to design. All human life is pervaded and governed by this principle. The child in its very play is following ideals, youth dreams visions, and manhood is a struggle to achieve its ambitions. All human products, whether of industry or of art, bear the marks of design; they are evidently shaped for ends which they are intended to fulfill. Some ends are near, and others are remote as they

> forecast the years
> And find in loss a gain to match,
> Or reach a hand thro' time to catch
> The far-off interest of tears.

The ends of the passing day are quickly fulfilled and forgotten. But a profession or a friendship is a life-plan, and a religious faith and hope looks for its final fulfillment beyond the horizon of this world into the eternal and infinite. Thus the soul is teleological in its operations, and casts all its products in the mold of design.

This brief elementary view of the nature of the soul

shows it to us as a bit of ultimate reality, which is yet a vast world full of powers and activities that will be of far-reaching significance and value when we come to inquire into the nature of reality in general, as the astronomer finds the little orbit of this tiny globe of basal importance when he comes to measure the distance of the stars. With this point of reality as the fulcrum for our lever, we shall now try to move the world.

CHAPTER VII

HOW WE REACH OBJECTIVE REALITY

BEFORE we try to move the world, however, we must pause a moment and consider whether there is any world to move. We have been showing that the world as we know it consists primarily of phenomena, or objects of experience. Sensations do not give us objective realities as they are, but only symbolic representations of them. The apparent extension of space is resolved into a subjective form which the mind constitutionally imposes on its own experiences. Since all the things we directly know are thus subjective states, how can we know there is any objective reality at all? May not the whole world of our experience simply be a subjective state of consciousness without any objective cause or connection? We have been assuming that subjective phenomena have objective realities as their cause, but what is the ground or the need of this assumption? May not this appearance of objective causes be only another illusion of the mind? One of the commonest objections to idealism — and to some minds it is the strongest objection — is the contention that it logically drives the thinker that holds it into solipsism, or the belief that he is the solitary being in existence and that the whole universe is but an affection or experience of

himself. How can we escape this conclusion and reach objective reality?

Some idealists concede that we cannot logically disprove solipsism if any one wants to maintain it; and that it is only by an act of faith that we believe in other minds and in a world other than ourselves. "Argue with him as we will," it is said, "raise what objections we may, the solipsist is secure in his position, for he calmly accepts all the grounds we may urge for objective reality and absorbs them as subjective states into himself. The only answer to him is our faith in objective reality." But we do not admit this negative position, and believe there are positive grounds for reaching an objective world. It is true that a refutation of solipsism cannot rest on mathematical demonstration: it can rest only on those general logical processes that convince us in all psychological problems and in the common affairs of life.

It may also be noted that the dualist, who believes in an extended world of reality, cannot urge solipsism as an objection against idealism, because he is himself no more secure against falling into the pit of solipsism than is the idealist. Solipsism is a sponge that will suck up dualism just as quickly and thoroughly as it will idealism. The dualist also must find a rock that is secure against this quicksand, and we believe there is such a rock.

(1) One objection against solipsism is its absurdity. It turns the whole world to "the baseless fabric of this vision" in a far deeper and more destructive way than the subjectivism of idealism, and leaves no shred of

reality outside of a solitary self. That any one should think himself the only being in existence is a state of mind so monstrous that we could only regard it as insanity. All thinkers, idealists not less than dualists, believe in an objective world and in their most skeptical speculations never for a moment doubt it. Our practical faith in this world does not depend on any arguments we can give for it, and is stronger than these arguments. There is therefore no practical issue involved in the matter, and the question is a purely academic one. Nevertheless, it is worth showing that our belief in an objective world is not a mere blind instinct or even a matter of faith, but rests on rational grounds.

(2) A glance into the total stream of our experience discloses it as consisting of two parallel streams: the stream of our sensations, or of phenomena, that we commonly call the external world or the world of nature; and the stream of our thoughts, including our feelings and purposes, that we think of as our own inner life. These two streams differ in ways that suggest a difference of nature and origin. The stream of phenomena is very vivid as compared with the stream of thought; it impresses us more deeply or stings us more sharply, as is seen in comparing a sensation with its revived image in memory. Already we have ground to suspect that the bright and sharp stream is caused in a different way from the fainter and weaker stream. This suspicion is confirmed by the fact that we stand in quite different relations to these two streams. The stream of our

thoughts is subject in a large degree to our control. We can deflect it in certain directions, towards or away from certain objects of experience, and can intensify or diminish it and even at points banish it. We can control it as a part of ourselves, and we are immediately conscious of it as ourselves. The stream of sensations or phenomena that we call the outer world, however, is not thus subject to our control, but affects us as a permanent order independent of us. Our sensations of the sun, for instance, illustrate this fact. The sun is always there, and we cannot banish it or work any change in it. It is true we can shut our eyes to it, and in this sense blot it out, but it is always there as a permanent possibility of sensation, and by no act of ours can we get rid of it as such permanent cause. But the sun is only one object in a vast system of things which we call nature or the world, and which exists as a permanent order of phenomena. It constantly affects us as a fixed system, and we learn its laws and adapt ourselves to it.

Now the stream of sensations is our own experience, but the permanent possibility of these sensations and their fixed order, both of which are beyond our control, are explainable only on the ground that this stream of sensations in our experience has a cause outside of our experience. Control is of the essential nature of consciousness: this is one of the marks by which we recognize and delimit ourselves, one of the constituent elements and boundaries of our personality; and this

permanent stream or fixed order refuses to submit to our control and come within this boundary, and thereby declares itself as being something other than ourselves. At any rate, anything that acts in this independent way is what we mean by objective reality. If the solipsist persists in calling this permanent order that refuses to come within the circle of his will a part of himself, we need only answer that such a permanent and independent order of being fulfills our conception of objective reality. We thus logically reach the conclusion that this stream of experience we call nature has some solid and majestic bank and bed of objective reality as its cause.

(3) A further look into this dual stream of experience, consisting of the bright stream of phenomena and its parallel fainter stream of thought, reveals to us one portion or section of experience that is in some degree common to both streams. This section of our experience we call our body. On the one side, it lies or flows in the bright stream of phenomena because it affects us as phenomena, being seen and heard and felt through our senses just as is any other object. And it is subject to all the laws of the phenomenal world. It obeys the laws of matter in the mass, such as gravitation, and the laws of matter in the molecule or atom, such as chemical affinity. It therefore belongs to the stream of phenomena, or to the objective world which we have found is not ourselves. On the other side, it differs radically from this objective world in that we are immediately aware

of it as being in closer relation with us than is the general world of nature, of which it is yet a part. It affects our consciousness, and our consciousness affects it in ways in which the general stream or framework of nature does not affect us and we do not affect it. In particular, it is subject to our will as nature is not. It moves at our bidding and executes our purposes, though in so doing it runs counter to and overcomes the energies of nature. The movements of the body cannot at all be explained by the laws of nature, though it is still subject to these laws: these movements can be explained only as the response to our will, as being geared into our consciousness. Thus the body is a section of the general stream of our experience that is common to the bright stream of phenomena and the faint stream of thought; or, more definitely, it is the phenomenon of a reality that is intermediate between the reality of our consciousness and the reality of the phenomenal world, and is interlinked with both; it is the connecting tie or vital artery between these two worlds through which they interact. This relation of the soul and body, which is one of the most difficult problems of metaphysics, will come up later for further elucidation.

The practical interaction of the soul and body is one of the most familiar experiences of life. The soul expresses itself through the body. The mind utters its thought through language, feature, and movement. Joy wreathes the face in smiles, and fear blanches it white. All the emotions of the heart paint themselves on the

face. The will moves every nerve and muscle to do its work. The soul pours through the body as water through a sieve, and thus manifests its whole inner life. Not only the tongue speaks, but the eye is eloquent, the flushed face is charged with meaning, and every feature blabs. So, also, the body acts upon the soul, conveying to it thought, stirring up its feelings, moving its will, causing it to leap with joy or cry out with pain, and thus pouring in through all its sluices quickening influences that flood the soul. We not only express ourselves through the body, but it is largely through the body that we know ourselves. Knowing how the soul and body are thus closely connected as causes or signs of each other's condition, from the state of the one we can infallibly infer the state of the other. From seeing the face we can tell the state of the soul, and from the state of the soul we can describe the features of the face. This fact has an important bearing upon our next argument.

(4) Let us now take a still further look into the great complex current of our experience with its bright stream of phenomena and its parallel faint stream of thought. We see in the bright stream certain spots or units of phenomena that are strikingly similar to our own phenomenal body. These bodies are sections of the stream of phenomena in that they affect us as phenomena and are subject to all the laws of the phenomenal world. But they also differ from this stream just as our own body does. They move and speak and in all respects act like

our own body. We can speak with them, and in every way they respond to us as beings with like thoughts and passions as our own. Now we know how to interpret our own body as the expression of our consciousness. Our bodily movements are the phenomenal symbols of our inner life. The logical step, therefore, is direct and conclusive by which we infer that these phenomenal bodies are the expression of inner life, or of souls, like our own. We thus know that these bodies which appear as phenomena in the stream of our own experience are the bodies of other souls; and as such souls must be ultimate reality like our own soul, we have thus reached objective reality and placed it upon solid ground.

Solipsism is thus logically undermined; its cell of isolation is ruptured. Even if the solipsist were to take the position that these phenomenal bodies are only points in his own experience and so belong to him, we answer that such bodies, animated as they are like our own, explainable only as having inner life like our own, are what we mean by other persons; and if the solipsist insists that these other persons are still only a part of himself, there is some truth in his contention; for we are all connected up in one vast organism of souls, and each one may view himself as the center of the whole. But this fact of the organic solidarity of souls is not solipsism, for it depends on the existence of distinct souls or personalities.

We have now reached a world to move. It embraces other souls, but it also embraces that vast and mysterious

framework of being that lies back of the permanent order of phenomena we call nature. To move this world of nature, to penetrate into its inner meaning and lay bare the secret of its reality, is the great problem and adventure of metaphysics, and to this problem we now advance.

CHAPTER VIII

THE NATURE OF OBJECTIVE REALITY

The individual soul works through the shows of sense
(Which, ever proving false, still promise to be true)
Up to an outer soul as individual too;
And, through the fleeting, lives to die into the fixed,
And reach at length God, man, or both together mixed.
— BROWNING.

THE world hangs before us as a vast many-colored curtain or veil. The great question of metaphysics is, What is the nature of this curtain? What lies behind this veil?

1. THE WORLD AS PHENOMENON

Our reasoning thus far has shown that this veil is a phenomenon, or stream of phenomena; that is, it is not a reality in itself, but is an appearance occasioned in the mind by some objective cause acting upon it. A stone or a star is the product of some reality acting on the mind, which reacts in accordance with its own constitution so as to erect and project this object of experience. The various sensational qualities of the object of experience, its color, sonance, odor, taste, and touch, are states of the mind, and as such they cannot exist in extended matter. Furthermore, this subjectivity of the object of

experience includes its spatial form, which is also a subjective appearance imposed on our sensational experiences by the constitution of the mind, and is not a form of the noumenal reality itself. That curtain of the world, then, is not matter according to our common meaning of this term: it is not an extended and insensate substance with the various qualities we ascribe to matter. This reasoning destroys the materiality of the world, but it does not show us its real nature; it is negative and destructive, but not positive and constructive.

We are still left to inquire, What is the nature of this world-curtain? The fact, however, that the reality of the world is not extended matter, raises a presumption that it is spirit or mind. The only kind of reality other than matter we know or can conceive is mind, and, matter having been resolved into a phenomenon, only mind is left. This alternative is not conclusive, for there may be kinds of reality that lie beyond our experience or our power to know. We have so far only a presumption in favor of the idealistic view.

2. The World as Mind in Man

There is one point, or rather millions of points, in the curtain of the world where we have pierced through it into its noumenal reality; namely, the point of human personality. We have seen that the stream of the phenomenal world contains sections or units which are proved to be the bodies of other minds like our own. The reality in every one of these bodies is known to us to be

consciousness; and thus we know that the objective world in more than a billion points is mind. This fact strengthens the presumption that the whole fabric of the world-curtain is spiritual in its ontological nature. As these multitudinous tiny units in the world-stream are the phenomena of finite minds, may not the great stream itself be the phenomenon of a vastly greater Mind? Towards this conclusion we are now tending.

3. The World as Life

As we interpret the phenomenal bodies of men in the world-stream as the symbols of inner life like our own, can we in any degree apply the same principle of interpretation to the world-stream in general? The points at which this stream most closely resembles the phenomenal bodies of men are the bodies of animals. Some of these, such as the higher domesticated animals, notably the dog, present to us phenomena that are strikingly similar to human actions. The behavior of a dog cannot be explained as caused by mechanical forces, as we explain the fall of rain and the flow of a river. It exhibits phenomena that clearly imply an inner life of perception, memory, feeling, rudimentary reasoning, and will. The phenomena of the dog are certainly the symbols of consciousness, though we infer from these phenomena that its consciousness is vastly less clear and full than our own. What is thus true of the dog is true in a lessening degree of all the higher animals as we observe their actions down through the descending scale to the

lower forms. The phenomena presented by the elephant and lion, deer and fox, bird and bee, whale and fish, evidently symbolize an inner life of varying degrees of consciousness. But when we descend to the lowest types of animal life, the worm and oyster, can we think that they have any dimmest consciousness? There is no point on our descending scale where we can say that consciousness has utterly faded out. It is true we must think that self-consciousness has long ceased before we reach the lowest depths of animal life, but the phenomena of motion they present, the way they feed and shrink from a touch and defend themselves and carry on all the complex activities of their being, persuade us that they, too, present the phenomenal symbols of an inner life that may be something like the dim deeps into which our consciousness sinks in sleep or under an anæsthetic.

When we pass below animal into vegetable life, we might think we have gone far beyond the borders of consciousness into a kind of being that contains no germ or trace of mentality. Yet closer consideration shows us we have crossed no logical limit to mental life in passing from the animal to the vegetable. No one doubts that the vegetable is alive, and the only question is, whether it exhibits any of the characteristics of mental life, or whether its outer activities are phenomenal symbols of inner soul life, as in the case of animals. The vegetable does exhibit such characteristics, though they may be few and faint as compared with those of

the higher animals. It carries on a complex system of physiological activities by which it nourishes itself and grows and thus parallels the main activities of animal life. It eats and drinks and breathes, assimilates food, and throws off waste products. It can be injured, starved, poisoned, is subject to diseases, and responds to remedial treatment. Some vegetables display activities that are startlingly like mental operations. The sensitive plant will shrink back and close up at a touch as quickly and apparently as purposively as an animal or a human being. Many plants are armed with protective organs which they use efficiently, and some have various traps and weapons with which they seize and kill prey. The vegetable kingdom is a world of wonders that excite the constant astonishment of the scientist. No more than the animal can the vegetable organism be reduced to a physical mechanism. It has an inner life that plays through and determines its activities. We are here pressed towards the conclusion that as human bodies are the symbols of an inner life like our own consciousness, and as the phenomena of animals are the symbols of greatly lower degrees or forms of conscious life, so the phenomena of vegetables are the symbols of a still lower degree of mental or soul life.

We may now think we have reached the very bottom of life, its bed rock where it rests on the inorganic floor and foundation of the world. What can we say of inorganic matter? What is the nature of this thing? It, too, is a phenomenon, and so is only the symbol of an

inner reality. But what is the nature of this reality? Can we affirm or believe or even suspect that the inner reality of inorganic matter is also living and mental in however low and dim a degree? Toward this belief and affirmation the science and thought of our day are tending. It has generally been thought that the chasm between organic and inorganic matter is one that can never be crossed by any evolutionary process.

Tyndall thought he could discern in matter "the promise and the potency of life," but his view won little credence or respect and was almost laughed to scorn. There has been a great battle over the possibility of the "spontaneous generation" of life out of inorganic matter, and the victory has generally been regarded as remaining with the opponents of such possibility. No known instance of such generation of life can be adduced. Yet there is a steady drift or pressure of scientific thought in this direction. The view appears to be growing in the scientific world that not only is such origin of life not known to be impossible, but that there are facts and considerations that point strongly towards it. Theologians seem to have viewed the possibility of the spontaneous generation of life with some uneasiness, if not alarm, as though it would prove unfriendly, if not destructive, to faith. But this fear has passed, and the discovery or demonstration of such origin of life would not now occasion any alarm in the theological world and would create little surprise in the scientific world.

Nearly forty years ago (1872) Dr. H. Charlton Bastian

published a book on "The Beginnings of Life," in which he advocated the spontaneous generation of life out of inorganic matter. This book resulted in an international controversy among scientists, the outcome of which was generally held to be that M. Pasteur had demonstrated by actual experiments that such generation of life could not take place. Dr. Bastian, who is now (1909) emeritus professor of medicine in University College, London, recently returned to the subject in a volume entitled "The Evolution of Life," in which he examines and undertakes to refute Pasteur's supposed demonstration and gives reasons for believing that life has been evolved out of inorganic matter. One of these reasons is the persistence of the lowest types of life, such as bacteria, unchanged through millions of years. He contends that evolution would require that these initial forms should be left behind and perish in the upward march of life, and that their persistence on the theory that denies spontaneous generation is a mystery. But "the present-day existence of these organisms may be fully explained, and is just what might be expected if they are ever seething up anew by archebiosis and heterogenesis;" that is, if life is being constantly evolved from inorganic matter. It is true it is settled that spontaneous generation cannot take place in the decoction of hay or extract of beef, as Pasteur proved, but the doctrine of evolution presses persistently on this point, and it is probably true that most scientists to-day believe that inorganic matter contains the subtle threads out of which life has been

spun, though when and how this process has been, or is being, effected is yet a matter of speculation.

Let us, however, look straight into inorganic matter and note what we can see. We at once encounter the striking fact that so-called "inorganic" matter is not inorganic at all, but is highly organized. This is specially true of crystals, which are not regarded as "organic" or living matter, and yet they are demonstrably not amorphous matter, but exhibit many of the characteristics of living organisms. Crystals obey the three great laws of life: they have each its own type or species which persist through successive generations; they grow by nutrition, absorbing and assimilating material from the mother liquor; and they are reproduced by impregnation and filiation. A solution of a crystallizable liquid will not begin to crystallize if it is protected from the germs of crystals, just as a decoction of hay will not generate any bacteria if it is protected from the germs floating in the air. If the crystallizable liquid is touched with a rod that has been sterilized, no crystals will appear; but if it is touched with a rod that has been impregnated by coming in contact with the crystals of the substance, the liquid will immediately begin to crystallize. The demonstration is complete that there are crystalline germs that propagate crystals, just as there are germs that propagate each species of life. This is true of each substance in one set of conditions, but in another set of conditions crystallization spontaneously takes place. "There is for each substance a set of conditions (tem-

perature, degree of concentration, volume of the solution) in which the crystalline individuals can be produced only by germs or by filiation. . . . There is, however, for the same body another set of circumstances more or less complex, in which its germs appear spontaneously."[1] Thus matter that is not regarded as living in the ordinary sense exhibits some of the most fundamental characteristics of life. There are still more curious and remarkable features presented by some forms of matter, such as the "radiobes" of John B. Burke, the English scientist, described by him in his work on "The Origin of Life." These are formations in certain chemical solutions that resemble plant growths and behave wonderfully like living things. Mr. Burke does not regard them as living, but they develop forms and exhibit activities that seem to ally them with living rather than with dead matter.

But is not uncrystalline, amorphous matter also organized? Chemical molecules are highly complex bodies, often composed of an immense number of atoms arranged in accordance with fixed plans and in a state of activity rapid and violent beyond our power of conception. The molecule, like the crystal and vegetable and animal, is true to its own type, and maintains its own cycle of activity. Not only so, but the atom itself is now found to be a vast world, composed of hundreds

[1] See a paper on the "Life of Matter," by A. Dastre, setting forth these investigations and other related facts, in the Report of the Smithsonian Institution for 1902, pages 393–429.

and thousands of smaller bodies or electrons, organized into a system in which they obey their own laws and perform their own activities. Still further, matter in its last analysis is resolved into energy. All its properties manifest themselves to us in the form of energy. Its light, heat, sonorousness, odor, taste, and touch are all so many kinds of activity. The atom is resolved into electrons which behave as though they were, and eminent physicists believe them to be, bits of electricity, or vortexes or whirls in the ether, or manifestations of pure energy.

Now life manifests itself to us as activity. It is only through its activity that we know it to be life. We know our own life through its activity. Consciousness itself is in a state of constant action, and an absolutely impassive consciousness could not know anything and would not be consciousness. If the activities of plants and animals are known to us as manifestations of life, how can we escape supposing that the activities of matter in crystals, molecules, atoms, and electrons are also manifestations of life?

The belief that matter is animate is very old and has been widespread and persistent in the world. Primitive religion was widely based on animism, and the pantheistic philosophies of the East are saturated with the same doctrine. The great philosophers have usually held this view, and it is a favorite thought with poets.

> List to the voices. Everything has voice.
> Winds, waves, and flames, trees, reeds, and rocks rejoice.
> They live, indeed, each thing instinct with soul.

Leibnitz teaches: "There is no inorganic kingdom; only a great organic kingdom, of which mineral, vegetable, and animal forms are the various developments. . . . Continuity exists everywhere throughout the world, and life, together with organization, also exists everywhere. Nothing is dead; life is universal." Not only poetry and philosophy, but modern science, as we have seen, is tending towards the same view and is discerning, with Tyndall, in matter "the promise and the potency of life."

From this point of view, the physical universe is not a dead mass and expanse of insensate matter, infinitely exceeding in quantity the amount of living matter, but it, too, is alive down through crystals and molecules and atoms to the burning core of the earth and out to the farthest star, and throbs in every part. As every movement of our bodies and molecular motion in our brains is accompanied with corresponding psychic experience or inner life, so all movements of the physical universe, from the sweep of stars in their orbits to the vibration of atoms in molecules and the whirl of ether in electrons, are accompanied with corresponding inner life, of which they are the phenomenal expression. The universe is not a dead thing, a vast corpse or skeleton, but a vital organism suffused and thrilled throughout with the warmth and splendor, the beauty and joy, of life. The glitter of the constellation and the glory of the sunset, the gentle murmur of the rivulet and the mighty surge and moan of the sea, tall pine, tiny fern, and the ex-

quisite petals and perfume of the rose, as well as the song of the bird, the play of human features and the music of the human voice, all are phenomenal symbols of inner experience. We live in a living world. We know life immediately only in ourselves as the activity of our spirits. Life is spirit in action. Objective reality manifests itself to us as activity, and this leads us to the conclusion that it is spirit.

4. The World as Thought

We again open the great world-book and find that it is written in the language of thought and discloses to us a thought-world. We may attack the problem at this point along several lines.

(1) The world is intelligible, and is therefore a product or form of thought. The immediate object of our knowledge is always a state of our own minds, and is therefore a purely mental object. It is difficult to see, as we have already shown, how the mind could know or come into any relation with an object that is not akin to itself. That the non-spatial purely spiritual mind could lay hold of, or be affected by, anything so foreign to its own nature as an extended insensate lump of matter, is a doctrine hard to defend and more difficult to believe, the more it is considered. The fact that the world can be known, therefore, is itself presumption, if not proof, that it is mental in its nature. It is not a foreign body apart from and alien to the mind, but a mental construction akin to the mind. The world as we experience it is

certainly a state and construct of our minds, and so far is purely mental. "The world is my idea," as Schopenhauer sententiously says in the opening words of his work "The World as Will and Idea." The question we are now considering is whether the objective ontological cause of the subjective phenomenal world that the mind erects and projects, is mental also. In evidence of the mental nature of the ontological world, we adduce the fact that the world we know is intelligible: therefore its ontological cause must be intelligent.

An illustration may help us at this point. A book is written in characters that express thought. The writer of the book put his thoughts into written language, and there they lie on the page symbolically represented, visibly crystallized or congealed in spatial forms. The reader now takes up the book and interprets the characters into the original thoughts of the author; he redissolves these symbolical crystals back into the author's thoughts, which are now dissolved in the reader's mind and become his own mental states. The book is thus an intermediary means by which the reader rethinks the writer's thoughts. It is known by the reader to express thought because he can interpret it in terms of thought. The assumption that the book is intelligible explains its characters, which otherwise remain an enigma and mystery. Any writing in unknown characters, however ancient and mysterious it may be, whether written in strange hieroglyphics on a parchment or cut in grotesque symbols and pictures on a rock, is always assumed to be

intelligible, and scholars at once go to work to find its key and unlock its meaning. When the meaning is found, it is always attributed to a mind as its cause.

Now the world is a great book written in a vast and various language. It is a grand picture book or volume with illuminated text in which appear all the facts and forms of nature depicted in many-hued colors. The broad fact about this book is that it is intelligible. The human mind can spell out its letters and words, and in a measure understand it. Its simple meanings lie on its face, and men must understand these in order to live at all. The meaning of food and drink, of fire and water, of plants and animals, of the soil and the sea, sun and stars, must be known by men, or they would soon perish. But through long ages men have studied this book with close and ever closer application, and a vast mass of knowledge has thus been slowly accumulated. Greatly increased skill in interpreting its language and unlocking its secrets has thus been gained. Many of the first crude and stumbling attempts at reading the book have been found to be more or less erroneous, and these mistakes have been corrected. The whole body of human knowledge has been in a state of constant change and correction by which it has been brought into ever closer approximation to the reality of the world. To-day men are studying the language of nature with vastly improved instruments and processes, and are ever delving deeper into its secrets. Test tube and crucible, telescope, microscope, and spectroscope, and countless other cunning

devices, are feeling far in and far out among the elements and masses of the world and discovering their structure, laws, and operations. All our science is just a reading of the great book of the world, as Champollion deciphered the Rosetta Stone. It finds this book intelligible throughout, and turns it into thought. Wherever it can read a letter or spell out a word of this language, into whatever far-off region or deep abyss it may penetrate, there it finds the marks of mind.

Not only so, but science is fully confident that the parts of the world it has not yet succeeded in reaching and interpreting are just as intelligible also, and would be perfectly transparent to thought if they could be brought within its ken or seen in their proper light. Never for an instant does it think or fear it may ever come upon any absurdity or irrational thing, any piece that would refuse to fit into the general plan of the world and be a discord in its music. Never does it doubt the entire and absolute intelligibility of the world, or its translatability into terms of mind. The faith of science in the essential rationality of the world is as profound and unquestioning as any faith religion ever asks or can show. It is faith because it cannot be demonstrated by any logical process, and yet it is a necessary presupposition of science. It is the torch science must take in its hand before it can begin to explore the world.

The world is thus a book of thought as clearly and certainly as any printed volume. The astronomer reads the heavens as we read his astronomy; and his astron-

omy is only a faint reflection of the skies, an infinitesimal miniature of the heavens. The geologist reads the rocky leaves of the earth and transcribes them into his own volume. The chemist reads chemical combinations as they are spelled out in molecules and atoms, and the physicist with more penetrating processes reads the electrons that compose the atoms. The biologist reads the world in terms of life. All scientists are reading the book of the world, each one some portion of it written in a language in which he is expert, and the whole body of science is simply the volume of thought they have transcribed from its pages. Scientists never make science: they simply find it. Every scientific thought they think has been thought for them in the book of nature and they simply rethink it, as Kepler said he was rethinking the thoughts of God. What they dig out of the world with their spade is really the thought of a Thinker who was there before them. Nature is their real text-book, and their work is simply to interpret it. Any thought they find in nature they attribute to the intelligibility of the world, and not to themselves. Thus nature is saturated with mind in every minutest part, and the stupendous whole is simply a splendid system of thought.

This view of the world is frequently set forth by scientists themselves, and it excites their constant interest and wonder. They are never laboring under any deception or illusion as to the source of their science, and know it is extracted from nature and not spun out of their own

minds. A striking and eloquent presentation of this view is found in "Ideality in the Physical Sciences," by Benjamin Peirce, who was an eminent professor of mathematics in Harvard University. He speaks of nature as "imbued with intelligible thought," of "the amazing intellectuality inwrought into the unconscious material world," in which there is "no dark corner of hopeless obscurity," of the "dominion of intellectual order everywhere found," and "of the vast intellectual conceptions in nature." This view is a favorite idea of poets—those intuitive philosophers who with deep, direct insight read the heart of the world. They look on the world as "petrified thought," "congealed mind," and speak of it as an embodiment that but thinly veils personality.

The conclusion that this aspect of the world presses on us is that it is the product and expression of mind. If the intelligibility of a book is proof that it is the product of an intelligent writer, the intelligibility of the world is proof that it is the product and expression of a vastly greater mind.

(2) This general mark of intelligibility may now be resolved into several elements. The world is characterized by law and order. Order is a mark of our own minds. Our thoughts are not a heap of disconnected and disordered states, but they cohere into a system that is pervaded and controlled by mental laws. Threads of relation bind them together in combinations and successions that follow definite lines so that they can be pre-

dicted. Amidst all the complicated play of our mental states, even when they may seem a scene of confusion, no idea or association or succession ever happens by chance or without a cause or out of its proper order, but the whole mind preserves its unity and harmony in orderly action. It may often puzzle and baffle us to find this thread of association and causation, but we believe it is always there, and can generally find it.

The outer world is at this point an exact copy of our own inner world. Law and order determine the whole foundation and structure of the world of nature. This order is seen on a grand scale in the heavens, where all bodies travel in orbits that obey mathematical laws and can be closely calculated; and the same order extends down through all moving masses to molecules and atoms. Nature geometrizes. She understands the circle and parabola and ellipse, arithmetic and all the subtleties of the calculus, because she practically solves and obeys these relations. Many of our profoundest mathematical operations simply work out and express the order we find in nature. Chemistry is equally mathematical. Molecules and atoms combine in definite and fixed proportions, and never violate their own order. Amidst all the dizzy dance which chemistry pictures, no atom ever wanders or falls from its proper place, but the exact position of every atom could be mathematically determined if we had instruments and processes refined and powerful enough to reach and solve the problem.

Causal succession is one of the forms of order, and this thread binds the whole universe together. Nothing ever happens by chance, but every event in nature arises and proceeds under strict causation. Prediction is one of the consequences and tests and triumphs of law, and science constantly proves its principles by this method and often in the most startling ways. Leverrier, from pure scientific calculation, told an astronomer to direct his telescope on a certain night to a certain point in the heavens and he would see a new planet: the astronomer looked, and the planet was there. Thomas Young predicted from his knowledge of the undulatory theory of light, that if a ray of light were passed through a certain crystal at a certain angle it would show the results of interference, and it did. The astronomer calculates eclipses in advance and thus draws up a time table for the heavens reaching through centuries, and the heavenly bodies, running around their vast orbits at amazing speed, arrive at the predicted point on time to the second.

The universe is thus woven of beautiful law and order in all its mighty fabric and delicate tissues so that no slenderest thread ever gets torn or caught on any jagged edge of chance. Amidst all the mighty maze and mystery of the universe, in the most distant sun, in the darkest depths, in tangled forest, fiercest tempest of the sea, or wildest confusion of a storm, no atom ever gets out of place, no drop of dew ever misses its appointed blade of grass, no star ever shoots a forbidden

ray. The outer world of phenomena at this point matches the inner world of mind, and this is another evidence of its mental nature.

(3) The world is also marked by plan and purpose. Purpose is a still more characteristic mark of our own minds. We gather our thoughts up into a plan and direct them towards an end. We are ever striving to think our way forward towards the accomplishment of some object. The more systematic and intense is our thinking, the less it consists in mere reverie and dreamy drifting; the more it is concentrated and controlled, the more purposive it is. Purpose is thus one of the most characteristic marks of the mind; it is mind at its highest and best.

The world also is pervaded and controlled by plan and purpose. Order implies plan, but plan is order organized and directed towards an end. There may be order without purpose, but not purpose without order. The order of the world prepares us to expect plan and furnishes material with which plan and purpose can work. Plan and purpose are seen in the realization of ideals inwrought in the whole fabric and texture of nature. Everything in nature is fashioned after a plan or type which it strives to realize. There are no shapeless, irregular, or lawless units, but all individuals belong to species, and each species maintains its own type. The atoms are constructed according to definite plans, and each kind of atom keeps to its own form. The chemical molecules are constructed according to plans that can be mathematically represented, and are often enormously complicated.

Snowflakes present the most elaborate and beautiful architecture. Crystals are a striking illustration of the same law. Each kind of crystal has its own pattern and maintains it in all conditions. It is wonderful to see a crystal striving to fill out its specific form when it meets with obstruction; and when it is mutilated, it sets to work to repair the defect and restore the perfect form. "When a crystal from which a piece has been broken off," says Pasteur, "is replaced in the mother liquor, we see that while it increases in every direction by a deposit of crystalline particles, an excessive activity occurs at the place where it was broken or deformed; and in a few hours this suffices not only to build up the regular amount required for the increase of all parts of the crystal, but to reëstablish regularity of form in the mutilated part." The crystal thus builds according to plans and specifications as plainly as an architect in constructing a building. It has an ideal incorporated in its germ which it is striving to realize.

This realization of ideals is most strikingly illustrated in the world of life, where every spore and seed and germ contains a plan which it unfolds in its growth. Instances of this architectonic realization are as countless and familiar as all the forms of life. Two wonderful examples are here adduced, one from Mr. Huxley and the other from Maurice Maeterlinck. "The student of Nature," says Mr. Huxley, "wonders the more and is astonished the less, the more conversant he becomes with her operations; but of all the perennial miracles she offers to his inspection, perhaps the most worthy of admiration is the devel-

opment of a plant or of an animal from the embryo. Examine the recently laid egg of some common animal, such as a salamander or a newt. It is a minute spheroid in which the best microscope will reveal nothing but a structureless sac, inclosing a glairy fluid, holding granules in suspension. But strange possibilities lie dormant in that semifluid globule. Let a moderate supply of warmth reach its watery cradle, and the plastic matter undergoes changes so rapid and yet so steady and purposelike in their succession, that one can only compare them to those operated by a skilled modeler upon a formless lump of clay. As with an invisible trowel, the mass is divided and subdivided into smaller and smaller portions, until it is reduced to an aggregation of granules not too large to build withal the finest fabrics of the nascent organism. And, then, it is as if a delicate finger traced out the line to be occupied by the spinal column, and molded the contour of the body; pinching up the head at one end, the tail at the other, and fashioning flank and limb into due salamandrine proportions, in so artistic a way, that, after watching the process hour by hour, one is almost involuntarily possessed by the notion, that some more subtle aid to vision than an achromatic, would show the hidden artist, with his plan before him, striving with skillful manipulation to perfect his work." [1]

The other illustration is Maeterlinck's account of the mating of the vallisneria, one of the most remarkable of plant courtships: "Its whole existence is spent at the

[1] Lay Sermons, pages 260–261.

bottom of the water in a sort of half slumber until the moment of the wedding hour comes, when it aspires to a new life. Then the female plant slowly uncoils the long spiral of its peduncle, rises, emerges, and floats and blossoms on the surface of the pond. From a neighboring stem the male flowers, which see it through the sunlit water, rise in their turn, full of hope, toward the one that rocks, that awaits them, that calls them to a fairer world. But when they have come halfway, they feel themselves suddenly held back; their stalk, the very source of their life, is too short. Did the males foresee the disillusion to which they would be subjected? One thing is certain, that they have locked up in their hearts a bubble of air, even as we lock up in our souls a thought of desperate deliverance. It is as though they hesitated for a moment; then, with a magnificent effort, the finest, the most supernatural that I know of in all the pageantry of the insects and the flowers, in order to rise to happiness they deliberately break the bond that attaches them to life. They tear themselves from the peduncle, and, with an incomparable flight, amid bubbles of gladness, their petals dart up and break the surface of the water. Wounded to death, but radiant and free, they float for a moment beside their heedless brides and the union is accomplished, whereupon the victims drift away to perish, while the wife, already a mother, closes her corolla, in which lives their last breath, rolls up her spiral, and descends to the depths, there to ripen the fruit of the heroic kiss."

Professor Simon Newcomb says: "Should we see in

visible masses of matter the same kind of motions which we know must take place among the molecules of matter as they arrange themselves into complex attitudes necessary to form the leaf of the plant, we should at once conclude they were under the direction of a living mind, who was superintending the execution of these arrangements."

The realization of plan, which is thus universally seen in individual things, is also seen in the wider and ever wider combination and interplay of separate parts of the world. All things in nature from atoms to constellations fit into one another with the utmost nicety and work together without slip or jar in perfect smoothness. What a wide coöperation of forces plays about a blade of grass or a flower? The seed and soil and shower and sun, the rocky layers under the soil down to the burning core of the earth and all the stars in the sky, mysterious physical, chemical, and vital forces, are all working together in exquisite harmony that that tiny blade of grass may grow, that that frail flower may bloom.

Rings of wavelets on the water,
Circling flights of butterflies,
Interweave themselves with orbits
Of the planets in the skies.

Every point in the universe is a center around which the whole mighty system is delicately balanced. The cosmos constitutes an organism in which the whole serves each part and each part serves the whole. "Every thing," says Victor Hugo, "labors for every thing.

Algebra is applied to the clouds, the radiation of the star profits the rose, and no thinker would dare to affirm that the perfume of the hawthorn is useless to the constellations. There are marvelous relations between beings and things, and in this inexhaustible total, from the flea to the sun, nothing despises the other, for all have need of each other. Every bird that flies has round its foot the thread of infinity. In the vast cosmic exchanges universal life comes and goes in unknown quantities. It is an enormous machinery of cogwheels, in which the first mover is the gnat, and the last wheel is the Zodiac."

The old argument for intelligence in nature from design in its mutual parts has been modified, but not invalidated, by the doctrine of evolution. It no longer rests on the "carpenter theory" of the universe, which viewed the parts of the world as having been cut out separately and then fitted together, as a piece of furniture is made in a shop; but, as all things grew up together and in a sense made one another, design is now seen to inhere in the ground-plan of the system which has involved these harmonious results; and the marks of plan and purpose on the parts are proofs of intelligence in the system. Darwin himself affirmed that this system requires more teleology than it has displaced.

Summing up under this head, we see that the world is intelligible, orderly, and purposeful. These are constituent characteristics of thought, and therefore at this point the world is essentially an intellectual fabric and

is of a piece with our own minds. In the eloquent words of Dr. James Martineau: "What have we found by moving out along all radii into the infinite? That the whole is woven together in one sublime tissue of intellectual relations, geometrical and physical — the realized original, of which all our science is but a partial copy. That science is the crowning product and supreme expression of human reason. . . . Unless therefore it takes more mental faculty to construe the universe than to cause it, to read the book of nature than to write it, we must more than ever look upon its sublime face as the living appeal of thought to thought."

5. The World as Sensibility

A second fundamental aspect or faculty of the soul is its power of sensibility, and we now open the world-book to see if it presents evidence of being endowed with this power, or may be viewed as a symbol of sensibility.

(1) Our own feelings are reflected and symbolized in our bodily activities. Bodily movements, flushed face and gleaming eyes, smiles and tears, are as plainly the language of feeling as words are the language of thought. Through these bodily signs we read the feelings of our fellow-men, and are confident we know them as certainly as we know our own. By an extension of the same principle, we can read the feelings of the higher domesticated animals. The joy that animates a dog or the fear that makes it cringe and whine is unmistakably known to us. Bodily behavior is a symbol of feeling on down

through the animal scale, the feeling evidently becoming less conscious and vivid the lower the descent on the scale. We do not doubt that any vertebrate animal feels pain when it is wounded; but does a worm or an oyster when it is cut in two? It shrinks at the touch of the knife, and acts as though it were pained. As in the case of life, so in the case of feeling we pass no logical limit to sensibility as we go down the scale of the animal kingdom. Feeling at the bottom of this scale may be very feeble and rudimentary, but we are compelled to believe that it is still experienced. Even when we cross the border or turn the loop into the vegetable kingdom, we still meet with activities, especially such as are seen in sensitive plants, that betray feeling, though of so low a grade as to be beyond the power of our consciousness to conceive it. In a similar way we are led to trace the manifestations of feeling down through inorganic matter to the vibrations of atoms and electrons. As the activities of human bodies are to us the symbols of sensibility, so we may, or must, view the activities of all matter as symbols of feeling, however faint and blind it may be.

We may not be able to interpret the feeling expressed in nature to any great extent. The feelings of the higher animals are often plainly disclosed. The wagging tail and smiling countenance and lively bark of the dog and the gushing song of the bird are unmistakable expressions of joy. Animal cries of pain are often startlingly human in their expressiveness and pathos. When

we pass below animal into vegetable life, and still lower into inorganic matter, we find the symbols of feeling in nature, growing ever less definite and clear. It is true that we attribute moods to nature. We speak of the hope of spring, the joy of summer, and the melancholy of autumn, of glad sunshine and sad skies, of the sighing of the wind and the moan of the sea, of the gloom of the forest and the wrath of the storm, but it may be said that these are poetic figures of speech. Yet in using them may we not speak better than we know? The fact is that nature, with its many-colored aspects, its mobile features and changing hues, does awaken in us these various feelings. It is a harp of a thousand strings that responds to the whole range of our emotions, or a vast sounding board that reënforces our feelings and gives them depth and richness and power. Whatever our tone of feeling or mood, whether of joy or sorrow, hope or melancholy, we can find it expressed in some aspect of nature. Nature excites our emotions just as it awakens our intelligence. What is the explanation of this fact if it is not that the fabric of nature is woven of threads of feeling even as it is woven of threads of thought? It touches our emotional chords as it touches our intellectual faculties, and thereby shows its kinship with our hearts as it shows its affinity with our minds. What makes us feel must ultimately spring from what can itself feel.

(2) This general mark of sensibility in nature becomes specially clear and vivid in the beauty and sublimity of nature. The beautiful and sublime are among our

richest and noblest feelings, and we seek to express them in all the varied and glorious forms of art. The highest efforts of genius and the costliest fabrics of human toil and skill are devoted to this end. We never doubt the meaning of these works of art. Painting, sculpture, and architecture are a language as well understood by the feelings as are spoken or printed words by the mind. But the supremest achievements of human genius and skill are poor and pitiful compared with the sublimity and beauty of nature. Nature is a vast canvas set in a stupendous frame. The sky by night is a glittering dome, gleaming with brilliant points as though sown with diamonds or filled with a shower of white sparks. The day dawns as a rose unfolds its petals, blossoms into the splendor of noon, and closes with the dying glories of the sunset. The seasons are a procession of pictures and a pageantry of color. Spring comes smiling in green; summer swathes itself in heavy folds of beauty; autumn is rich in color, and even when shorn of its summer glory, it decks itself in bright shreds and patches and becomes a beggar in scarlet rags; and winter robes itself in spotless white. Flowers are shaped and painted and perfumed into all lovely forms and delightful odors, birds are brilliantly arrayed, and insects, richly colored and enameled and bejeweled, are as winged flowers. Inorganic nature is adorned with beauty as well as living forms. Every landscape frames a picture, the mountains are stamped with sublimity, and the clouds are a gorgeous panorama. Crystals are frozen geometry, a

snowflake is a marvelous bit of architecture, and even a common grain of sand under the microscope is a blazing jewel. The smallest things in nature are given some edge of adornment or glint of color that makes them beautiful. Tiny diatoms are wonderful in their delicate tracery of intricate patterns and in their rich colors, and are the envy of the artist. The microscope can show nothing that has escaped the finishing touch of perfection, and the telescope reveals no unsightly stars. There is no depth of the sea or hidden nook in a forest that does not have its profusion of beautiful forms. All nature is drenched and saturated with beauty. It has soaked in among its atoms and stained its ultimate elements; or rather it exudes from its central core and cause.

What is the meaning of all this beauty? The doctrine of evolution comes forward with a utilitarian explanation. It says that color is protective against enemies or attractive to friends. "Flowers," says Mr. Darwin, "rank amongst the most beautiful productions of nature; but they have been rendered conspicuous in contrast with the green leaves, and in consequence at the same time beautiful, so that they may be easily observed by insects. I have come to this conclusion from finding it an invariable rule that when a flower is fertilized by the wind, it never has a gayly colored corolla. Hence we may conclude that, if insects had not been developed on the face of the earth, our plants would not have been decked with beautiful flowers, but would have produced only such

poor flowers as we see on our fir, oak, nut, and ash trees, on grasses, spinach, docks, and nettles, which are all fertilized through the agency of the winds."

This theory does explain some facts, and is so far true. Natural selection has sifted out the beautiful colors of many flowers; butterflies and bees have indirectly painted the lily and the rose. But this theory falls short of explaining all or even a considerable part of the beauty in nature. Utility has no relation to the gorgeous panorama of the skies or the glories of the autumn forest, and it cannot be connected with the elemental beauty that saturates the world.

Beauty, then, like thought, is a revelation of the nature of the ontological world, and shows us that ultimate reality is endowed with a sense of the beautiful. It is another appeal of spirit to spirit. It is intolerable to our thought to believe that lumpish matter, without idea or sense, could create in us the glorious vision of beauty we experience in the phenomenal world. This phenomenal beauty can be rooted only in ontological beauty, and ultimate reality cannot create in us anything it does not experience itself. Beauty is another witness to the spiritual nature of the world. A little child, quoted by Newman Smyth, in his "Through Science to Faith" went to the center of this truth with the intuition of the child heart, when, gazing into the beauty of an evening sky, it said, "Mother, I know what makes it so; God gets beneath it and shines through it."

(3) Another special form of sensibility rooted in nature

is music. Music, broadly speaking, is the language of feeling, as words are the language of thought; only, music expresses feeling more intimately than words express thought, for it is feeling itself thrown into rich rhythmic states. The resources of music to express the infinite varieties of feeling are as flexible and inexhaustible as the varieties themselves. The soul pours out its joys and sorrows and all its many-colored emotions in a flood of melodic utterance. Through human voice, speaking tubes, quivering strings, and resonant wood, metal and membrane, in simple melody and solemn procession of stately chords, in song and symphony, hymn and anthem, ballad and oratorio, in sad minor chords and jubilant major strains, in tonal storms that come up in mighty surge and swell and crash from the depths of the orchestra or piano and break in light spray and foam over all the strings and keys, in the deep-toned boom of the organ pipe and in filmy weavings of scales and trills, the many-hued iridescence of melodic fancy, the soul of man gives expression to its profoundest and gayest and most intricate moods. In joy and in sorrow, at wedding and at funeral, at work and in worship, in peace and in war, man sings. As a thought has not reached its fullest and richest expression until it is intensified and glorified into poetry, so an emotion has not found its deepest and most satisfying outlet until it has gushed and soared into song.

What is the relation of music to nature? There is some music in nature itself. Birds are the most musi-

cal of animals, and their pure liquid notes drench the forests with song. Their song obeys true melodic laws, and in some instances can be expressed in musical notation. There is also a musical element in all the sounds and voices of nature. The hum of insects, the rustle of leaves, the whistle of the wind, the patter of rain, the murmur of streams, the surge of the sea, the roll of thunder, the deep boom of the cataract, — these, if not musical, are at least the raw materials of music, and often affect us deeply and express and enrich our moods. The sounds produced by nature itself are hardly ever discordant, a jangle of mere noise, but are rhythmical and concordant. "The very echoes tossed to and fro among the mountains in melodious tones testify that the framework of the earth, with its resilient atmosphere, is a mighty instrument of music." [1]

But music goes still deeper into the constitution of nature. All music is expressed through material agencies. Externally, music is the air thrown into rhythmical vibrations that are controlled by exact mathematical relations. The complexity of motion agitating the air when an orchestra is playing is beyond our power of conception. The sea of the air is all crossed and recrossed and overlaid many fold with sound waves that combine in the most intricate forms, and yet in which each wave preserves its identity and contributes its part

[1] This quotation, together with the other quotations under this head, is from "God and Music," by John Harrington Edwards. The whole book is a beautiful and eloquent exposition of the argument at this point.

to the complex whole. "With all its plasticity and free range of form, from the airiest of swift-winged notes to the somber requiem or measured fugue, no elemental force is more bound by exact statutes of unbending nature. Mathematics are as fixed as fate, and music, in its physical constitution, is nothing but number applied to sound." The air is constituted with this rhythmic property, and thus music is rooted in the outer world.

But this is only the first entrance of this root into nature; it penetrates through the air to the instrument that is throwing the air into vibration. The particles of the wood or metal or membrane of which the instrument is composed are in a state of vibration that exactly matches and creates the vibration of the air. The wood or metal, then, is also musical in its constitution; its pores are full of melody. All substances have this property in greater or less degrees, and thus music pervades all nature, and all matter is saturated with it.

The diatonic scale, while it has been developed in human experience and is subject to some variation, yet is rooted in physical and mathematical laws and is endowed with qualities of universality if not finality, and thus the basis of music is built into the framework of nature. A musical note, such as is emitted by a vibrating string, is a complex structure and may be described as a whole orchestra in itself. It is not a single series of sound waves of uniform length, but a highly complex combination of many series of waves of

different amplitudes. The string not only vibrates as a whole, but also breaks into segments, and its halves, thirds, and so on, vibrate separately, thus producing "overtones." It is these overtones that give individual color and character to the tones of different instruments and voices. "Without these spirit-like attendants of musical notes all voices and instruments would have the same quality, becoming monotonous and insipid. . . . Ministering spirits of viewless sound, they furnish the endlessly varied coloring of music."

Thus music is rooted down in the foundation of nature. Like beauty, it has soaked in among the very atoms. The universe is musical in its constitution; it sings at its heart. It is a vast organ with multitudinous pipes, ranging from the deep-toned pipes of the sea and sky to the tiny vibrations that lie far beyond the limit of human hearing; a grand orchestra in which all the elements and forces and forms of nature are assembled as instruments. All possible notes and chords, melodies and symphonies, lie latent in this mighty instrument, ready at the touch of skilled fingers to gush forth in sweet rills and surging floods of melodic utterance. Nature is woven of chords and songs, and is exquisitely tuned and sympathetic to sing with our joy and sob with our sorrow.

The only sufficient and satisfying explanation of this musical nature of the phenomenal world is that the ontological cause of the world is also musical in essence. That which creates in us the glorious world of music

must itself be musical. "He that made the ear, shall he not hear?" The music of the world is another appeal of spirit to spirit. "Its tonal beauty reveals a creative love of the beautiful in sound, and also an intention in the Creator to awaken the same in intelligent beings, and share its joys with them. Design is shown not more in the mathematical regimen of music than in the manifold beauty of its colored forms adapted to spiritual ends. . . . The Infinite one is the embodiment of sanity and integrity, yet clothes himself in robes of visual and audible beauty, as fitting garments of that holiness which is perfect wholeness. And this is his gracious will for his intelligent creatures, that they shall be like him in solid structure of character, and, like him, shall put on the exquisite, joy-giving grace of the Beautiful."

> God is its author, and not man; he laid
> The keynote of all harmonies; he planned
> All perfect combinations, and he made
> Us so that we could hear and understand.

(4) Is there any gleam or indication of ethical sensibility in nature? We are now entering the region of highest values where all things are weighed in the balances of spiritual and eternal worth. The human soul rises to its highest power and expression in its ethical life. In the disposition and exercise of benevolence and righteousness, man is at his highest and noblest and best. Conscience is his crown, and his moral virtues are more splendid jewels than all his

brilliant intellectual powers. The rank of man on the scale of life is fixed by his moral stature, and the worth of the individual soul is measured by the same mark. The fact that in our unitary soul-life moral elements are inextricably interwoven with intellectual and emotional elements, raises the presumption that the intellectual and emotional fabric of nature has ethical threads woven into its texture. Ethical life, being the highest element of life, comes to clear and full expression only at the top of the scale of life, and can exhibit only its dim beginnings down near the bottom. But the top shows what is latent at the bottom, and man, as we have seen all the way through this argument, is the blossom that shows what is in the root. What is explicit in man is implicit in nature.

One element of moral sensibility is benevolence, a disposition of good will and happiness, the altruistic spirit that binds our human world into brotherhood and suffuses it with joy. We cannot find this principle as richly and radiantly developed in nature as in man, but it is unquestionably in nature in a rudimentary degree. The animal world is a scene of satisfaction and of joy. Domestic animals, especially the dog, exhibit many signs of pleasure, and we cannot hear the song of birds in the forest without feeling that they are living out their little lives in happiness. All animals down to the lowest derive satisfaction from the gratification of their appetites and from their activities, for the normal exercise of any organ or nerve or muscle is attended with

a degree of pleasure. The play of animals, especially of the young, is one of the most significant features of their life. It is a pleasant sight to see dogs at play and to note how closely they repeat the pranks and the very tricks of playing children. The animal world blossoms with joy at the top, and we must suppose that some degree of satisfaction saturates the tree of life down through all its cells to its lowest roots.

But is not this bright picture darkened with strife and disease and death? Is not nature "red in tooth and claw with ravine" so that it is rather saturated with pain than with joy? Mr. Wallace discusses this point in his "Darwinism" under the head, "The Ethical Aspect of the Struggle for Existence." He maintains "that the supposed 'torments' and 'miseries' of animals have little real existence, but are the reflection of the imagined sensations of cultivated men and women in similar circumstances; and that the amount of actual suffering caused by the struggle for existence among animals is altogether insignificant." "On the whole, then, we conclude," he says, "that the popular idea of the struggle for existence entailing misery and pain on the animal world is the very reverse of the truth. What it really brings about is the maximum of life and of the enjoyment of life with the minimum of suffering and pain. Given the necessity of death and reproduction, — and without these there could have been no progressive development of the organic world, — and it is difficult even to imagine a system by which a greater

balance of happiness could have been secured. And this view was evidently that of Darwin himself, who thus concludes his chapter on the struggle for existence: 'When we reflect on this struggle, we may console ourselves with the full belief that the war of nature is not incessant, that no fear is felt, that death is generally prompt, and that the vigorous, the healthy, and the happy survive and multiply.'"

Ethical sensibility comes to its fullest expression in nature in its altruism. Mother love is a strong and beautiful affection in the higher animals, and it will pay the last full measure of sacrifice; and the altruistic principle runs down through the whole constitution of nature. The cells of the very lowest organisms, whether animal or vegetable, work together in social colonies and serve one another. Service and sacrifice are everywhere woven into the web of the world. Henry Drummond was the discoverer of this truth, or at least was the first to see it clearly and bring it out fully. In his book on "The Ascent of Man," he shows that "the struggle for life" is balanced by "the struggle for the life of others," and that in the second of these two principles "lies a prophecy, a suggestion of the day of Altruism." "Take the tiniest protoplasmic cell," he says, "immerse it in a suitable medium, and presently it will perform two great acts — the two which sum up life, which constitute the eternal distinction between the living and the dead — Nutrition and Reproduction. At one moment, in pursuance of the Struggle for Life, it will call in

matter from without, and assimilate it to itself; at another moment, in pursuance of the Struggle for the Life of Others, it will set a portion of that matter apart, add to it, and finally give it away to form another life. Even at its dawn, life is receiver and giver; even in protoplasm is Self-ism and Other-ism. These two tendencies are not fortuitous. They have been lived into existence. They are not grafts on the tree of life; they are its nature, its essential life. They are not painted on the canvas, but woven through it."

In poetic language he traces the evolution of this principle: "Love is not a late arrival, an afterthought, with Creation. It is not a novelty of a romantic civilization. It is not a pious word of religion. Its roots began to grow with the first cell of life which budded on this earth. How great it is, the history of humanity bears witness: but how old it is and how solid, how bound up with the very constitution of the world, how from the first of time an eternal part of it, we are only now beginning to perceive. For the evolution of Love is a piece of pure Science. Love did not descend out of the clouds like rain or snow. It was not distilled on earth. And few of the romances which in after years were to cluster round this immortal word are more wonderful than the story of its birth and growth. Partly a product of crushed lives and exterminated species, and partly of the choicest blossoms and sweetest essences that ever came from the tree of life, it reached its spiritual perfection after a history the most

strange and checkered that the pages of Nature have to record. What Love was at first, how crude and sour and embryonic a thing, it is impossible to conceive. But from age to age, with immeasurable faith and patience, by cultivations continually repeated, by transplantings endlessly varied, the unrecognizable germ of this new fruit was husbanded to its maturity, and became the tree on which humanity, society, and civilization were ultimately borne." Evolution is thus not simply a tale of battle, but is also a love story.

Newman Smyth, in a chapter on the "Moral Character of Nature" in his "Through Science to Faith," concludes his argument on this point as follows: "Follow in imagination this process of development on and on, until life on the earth becomes aglow with sensation, and in ever-varied forms is capable of harmonious adaptations and the satisfied appetencies of the animal world as we know it. Measure the vital value of it at its height, when at last it has broken forth into supernal joy and gladness in our human consciousness of life as something nobly to be won, and grandly worth the living. An immeasurable distance has been traversed along this way marked by the sign of vital worth. A vast gain has been made in pleasurable capacity. The happiness possible to a man, as compared with the happiness possible to a monad, is high as the heavens above the earth. But the traversing this vast distance and the gain of this high power constitute a revelation; hereby is made manifest the moral character of the evolution.

The end reached is a good end. Naturalism, therefore, as judged by the ages of accumulated contributions to sensitive capacity for happy life has worked well: naturalism, when seen thus in the large, takes on moral character; the order on the whole is a worthy order."

The order of the world also points to a moral principle at its center, radiating through all its parts. It is a world of law and truth and honesty in its constitution, and thus it imposes the obligation of these virtues upon man and affords him a field in which he can live a free and full ethical life. Virtue is obedience to its laws, and vice is disobedience, and therefore it rewards the one and punishes the other. While nature cannot exhibit the full flower and spiritual glory of conscience in its lower organisms as it can in man, yet it shows its moral sympathies all the way down the scale of life.

Prophets and poets have ever beheld in nature a grand witness to truth and duty; they have heard solemn voices rolling out of its skies, over its seas and through its forests, preaching righteousness and reverence. The Psalmist saw that "The heavens declare the glory of God"; and Wordsworth saw Duty inwrought into the whole fabric of nature: —

> Flowers laugh before thee on their beds
> And fragrance on thy footing treads;
> Thou dost preserve the stars from wrong;
> And the most ancient heavens, through thee, are fresh and strong.

The germs of ethical sensibility are thus found in the lowest roots of nature, and they evolve with its evolu-

tion. Following the principle of our reasoning, we are led to the conclusion that the ethical nature of the phenomenal world points to the ethical nature of the ontological cause of the world. An unethical cause cannot produce ethical sensibility. What gives conscience has conscience.

6. The World as Will

The third fundamental faculty of the soul is will, and we now open the phenomenal book of the world to see if it can be interpreted as the symbol of this mental power.

(1) Our own bodily activities are preëminently the expression of our volitions or acts of will. While these activities express our thoughts and feelings, as we have seen, yet they more directly and fully express our volitions, for they are the immediate means through which the will acts. We will to speak, or walk, or move the hand, and instantly the tongue responds with speech, or the foot or hand with the appropriate motion. We are immediately aware of our will as the occasion or cause of our bodily movements. What we know externally and phenomenally as motions of our bodily organs, we know internally and ontologically as actions of our will; that is, the bodily motions are conveyed to us through our senses as phenomena, but the actions of the will are immediately known to us as states of the soul or ontological realities. Our bodily activities are thus the external symbols of internal states or acts of will.

This relation can now be run down through nature, as was done in the similar cases of thought and sensibility. The bodily activities of the higher animals are undoubtedly the symbols of will similar to our human will. The walking of a dog or horse is as clearly due to the volition of these animals as is the walking of a man. As we descend the scale of life, we come to no logical limit where we can say that will fades out and utterly ceases to act. The flight of an insect, or the crawling of a worm, or even the opening and closing of an oyster's shell is still an act of will, however low may be its directing intelligence and however instinctive it may be. When we pass on down into the vegetable world and down into the inorganic world, we still encounter physical activities, and we have met with no reason why we should deny or doubt that these external phenomenal activities are also the symbols of internal ontological will, though it may be inconceivably lower in its volitional nature than is our own will.

The very nature of will as we experience it is activity, and it expresses itself in symbols of motion. But the fundamental nature of matter is also motion. Not only are all masses of matter in motion, but its constituent molecules and atoms and electrons are in a state of violent activity. All its qualities of color, sound, odor, taste, and touch are forms of molecular activity, and the very atoms and electrons are now thought to be ether whirls or some mode of motion. As motion is the symbol to us of the activity of our will, the inference is

direct and strong that the ether whirls of atoms are the symbols of volitional activity, and thus the mighty mass of the universe becomes resolved into pure will. As will is the internal reality of our bodily activities, so is will the ontological reality of all phenomena. This is the central doctrine of Schopenhauer which he wrought out with great fullness and strength of reasoning in his "The World as Will and Idea."

We reach the same conclusion by a somewhat different approach. When we oppose our two hands to each other and exert our will equally upon them, the stress of the one is balanced by the stress of the other. The more we press with the right hand, the more we press with the left, and thus the equilibrium is maintained. We are immediately aware of the exertion of the will in the right arm, and at the same time we are also immediately aware of what is resisting this arm: it is the equal exertion of the will in the left arm. In this case we know the ontological reality that is stressing the right arm, and we equally know the ontological reality that is resisting it, which is the will stressing the left arm. Both the internal action of the will in the right arm and the external resistance that is opposing the right arm are ontologically known to us, and both of these forces are will, one and the same will. If we press our hand against another person's hand, we again know that the ontological cause of the pressure both in our hand and in the opposing hand is human will.

Now let us press our hand against an immovable

wall or rock. The rock resists our will precisely as in the former case our left hand resisted our right hand. The more we press our hand against the rock, the more the rock presses against our hand; that is, the rock acts just as though it were another will opposing our will. All matter acts upon us in this way. When we press upon it, it presses upon us; and it instantly increases or decreases its resistance so as to match and balance our resistance. In a word, matter acts as though it were a will. All the pressures, strains, motions, vibrations, and activities of every kind by which matter acts upon and affects us are so many manifestations of will. As when our left hand resists our right hand we know what is opposing our will and know it is will, so when any material thing is opposing the action of our will, we infer it is another will that is opposing us.

The whole material universe behaves as though it were will. The gravitation that holds us in its grasp acts as though it were a hand energized by will. The gravitational forces that bind the planets to the sun act as though they were so many mighty muscles, energized by will, that stretch from the sun to the planets and hold them in their orbits. When we resist gravitation, we are putting our wills against this cosmic will. The only conception we can have of a pound weight is the strain it puts on our will; a hundred-pound weight is a correspondingly larger strain of will; and we conceive a ton as a strain correspondingly heavy. When the astronomer computes in tons the energy of gravitation

that holds the earth in its orbit, we try to conceive it as a strain of will, — a strain, of course, immensely beyond our power, but still conceived in terms of will. In decreasing as the square of the distance, gravitation loses control over material objects in accordance with the same law our own will obeys, and, as we have already seen (page 75), is thereby assimilated to our will. All the forces of nature can be understood and are best explained as expressions of will. Chemical affinity is a craving of atom for atom and of molecule for molecule. In some instances this craving is like a feeble desire, and in others it is a fiery thirst and fierce passion that nothing can resist. Cohesion and adhesion are attractive energies that resemble will. Gravitation is a universal will that binds all the stars into one cosmos that pulses as one organism. The whole universe is under the stress and strain of will. From the vibrations of atoms to the sweep of planets and suns in the heavens, it behaves as will; it is striving and straining, craving and grasping, throughout. At every point it opposes its will to ours and treats us as we treat it. As our bodies are the phenomenal expressions of our wills, so is the material universe the phenomenon of a mightier will.

(2) But will is not mere stress and strain, a blind craving and striving; it is the activity of the soul directed by intelligence and achieving ends. Will embodies itself in deeds. A deed is an act that bears the marks of purpose; it is an ideal realized. All our rational actions are deeds. Some actions are done once for all

and pass away, leaving no visible trace to tell their tale. Other actions are repeated until they grow into habits; and some habits become so persistent that they are constant fixed actions or modes of action. Our language, ingrained beliefs and feelings, and our personal habits are such persistent and permanent deeds. They are still expressions of will, the will molded into habit, though they may have grown so automatic that the elements of conscious choice and effort have largely faded out of them. The whole mass of deeds and habits of one's will tends to grow into a mutually interdependent and consistent system, which is the framework and structure of one's character and life. This framework, though it is fashioned out of the elements of will that may seem ethereal and plastic as spirit or breath, may yet be stiff as steel and solid as granite, so that it will endure the most violent blows and shocks of life. A strong will is one that has fashioned itself into such a system of habitual deeds as will not easily yield to pressure from other wills, and may withstand the whole world. A weak will is one that has small resisting power and easily yields to the impact of other wills.

Now will as expressed in nature bears the marks of deed and habit. We nowhere see blind, aimless striving in nature, but all its energies flow into and fill the molds of definite aims and ends. All that has been said in the foregoing pages on law and order, intelligence and purpose in nature, bears on this point, and is proof of this principle. There are no lawless and purposeless

results in nature, but everything beautifully obeys its laws and fulfills its own place and purpose. A crystal is as certainly a deed as a cathedral; the orbit of a planet, as a curve swept by the hand of a mathematician or an artist. Crystal and curve are acts of will done for a purpose, and such acts are deeds. All the facts of nature are intelligible, and such facts are deeds, embodied will, or will that has achieved its ends. When a fact in nature is persistent and fixed, such as a stone or a star, that fact presents the appearance of a habit of will or a constant repetition of the act that constitutes the persistent act or fact. The whole universe is will in constant action, and this constitutes its persistence and stability. Though its mighty framework is more rigid than stone or steel, yet this framework is just ethereal spirit or will incessantly repeating its habitual actions or fixed deeds. All the facts or deeds of nature harmonize and cohere into a system or cosmos, which is the consistent and complete expression of one will. If we start with our own will as an ontological reality casting itself into deeds which are expressed in the phenomena of our bodily activities, there is no logical stopping place until we have reached the view that the cosmos is the phenomenon of a will energizing in a vast system of deeds.

(3) Does the will we see exhibited in nature have the attribute of freedom? By freedom we mean in our own experience the power of self-choice and self-action; the power to choose and follow our own ideas

and ideals as opposed to action forced upon us from without. Such freedom is of the very nature of will, and will, without some degree of spontaneity, would not be will. We do not doubt such self-action in man and in the higher animals, and we must suppose that some degree of it persists, as we descend the scale of life, even in the lowest organisms. The essential elements of will at the top must remain at the bottom. We can have direct experience of the freedom of will only in the case of our own will, but as our freedom expresses itself in phenomenal bodily activities, so may we infer that physical symbols express spontaneity all the way down the scale of life.

But at this point we encounter the difficulty that nature is governed by law, and law seems to bind will and render it incapable of freedom. The bodily symbols of men and of the higher animals may admit of interpretation as the phenomenal expressions of freedom, but will the operations of inorganic nature, the fixed lines and angles of the crystal, the invariable attraction of gravitation, and the unchanging sweep of planets in their orbits, admit of such interpretation? The difficulty appears formidable, but it appears more formidable than it really is, for we meet the same fact in our own experience. Are law and freedom mutually antagonistic and exclusive in our own lives? We live in a world of law, and yet we find it a field for the full exercise of our freedom. Even the fixed laws of nature, chemical affinity and gravitation, light and electricity,

do not bind us, but are pliant and plastic in our hands; not that we can abrogate or change their modes of action, but we can so combine and direct them that they become our nimble servitors and work out our purposes and thus further and fulfill our freedom.

Not only so, but our will is subject to internal laws of its own. Its action is not aimless striving and a blind striking out, but it is guided by reason and is subject to the play of motives. An unguided, uncontrolled will would be a terrible monster, and such freedom would be a fearful fate. The will decides and acts, not without reason, but with reason, and any other kind of freedom would be irrational and insane violence and folly. Yet such laws do not limit the freedom of the will, but rather furnish it with the ground and means of freedom. The steel track does not limit the liberty of the locomotive, but gives it all the liberty it has. As long as the locomotive keeps on the track, it can be driven with speed and safety, but when it jumps the track, its liberty is gone. So the will is free as long as it plays within the grooves of reason and motive, but when it flies from these guides, it becomes ungovernable and violent and works its own destruction.

Our will is subject to still further apparent limitation of its freedom in habit. Habit is crystallized or capitalized will, or will that through frequent and long repetition has become automatic, so that the element of conscious deliberation, choice, and effort has been outgrown and left behind. Thus we ordinarily walk with-

out trying to walk, or even thinking how we do it, almost as automatically as we breathe; and in the same way we speak and carry on many of the activities of life. Such habits are a great saving of our conscious will power, as they hand over these activities to the mechanism of reflex action and relieve us of debate, decision, and effort. They become the smoothly worn grooves in which our will plays with the least exertion and friction. Such habit may, through heredity, be crystallized into instinct, which is hereditary habit that has lost all conscious choice and effort and acts automatically. Were it not that the will is thus subject to the control of reason and motive, habit, and instinct, we could never know what others are going to do, or what we are going to do ourselves; and thus all plan and foresight would become impossible and our human world would be reduced to pure anarchy and chaos. But because the will is subject to law, we can construct plans and foresee and control the future and conduct our human life according to reason and order.

Now the point before us is that habit does not limit the freedom of the will, though at first sight it may seem to do so; for it is the will that molds itself into the fixed form of habit. It is true that when habit is thoroughly shaped and hardened, it does tend to confine the will in the groove it has worn and may even bind it with fetters as of fate; that is the very purpose of habit, and it holds out a great hope and a great warning. When the habit is good, it has become the fixed capital and strong

character of the soul, its wealth and joy. And when the habit is evil, it becomes the prison house of the soul which strong crying and tears may not break through. Nevertheless, the habit was not forced upon the will from without, but was the will's own choice and action, and it is, therefore, the capitalized freedom of the will itself. Even instinct is not bondage, but is just the way the will wants to act and may be viewed as the most perfect freedom. The will, therefore, plays within the grooves of reason and motive, habit and instinct, and finds its freedom unimpaired.

We are now in a position to apply these principles to the case of will in nature. They show us that the fact that nature is under law does not exclude freedom from any will that may be in it. For law in nature may still be viewed as the expression of reason, as we have already seen it to be, and such law does not bind freedom, but is its ground and means. The laws of nature, however fixed they may be, are none the less the choice of reason, and this is freedom. And, further, the laws of nature may be viewed as habits and instincts of the will of nature. The characteristic feature of habit and especially of instinct is unvarying regularity; and thus the regularity of nature, so far from excluding freedom, includes it: for these laws, habits, instincts, however regular and fixed they may be, are the grooves in which the great will of nature plays and finds its freedom.

We are now ready to draw the conclusion, on the same lines we have hitherto followed, that the phenomenal

world of nature is a manifestation of will. The world bears all the marks of will: it is activity, moving to ends, in accordance with reason and habit. The phenomenal world being a manifestation of will, its ontological cause must be will also. What manifests will must be will.

7. General Characters of the World

In our study of the soul as a bit of ontological reality, we found it marked with the general characters of unity, growth, law, habit, freedom, and purpose. These same marks have already emerged in some degree as characters of the phenomenal world, but they now may be set forth more distinctly.

(1) The unity of the world may be traced along various lines. The endless forms of matter may be reduced to a few chemical elements, and these not only constitute the earth, but their presence is proved in the sun and stars, so that the conclusion is strong that all planets and suns are built of the same stuff; and thus the universe is a unit in its physical composition. Several lines of evidence also converge towards the conclusion that the chemical elements are really compound and are resolvable into fewer simpler elements. This fact points to one final element as the ultimate physical constituent of the universe, and this would reduce the cosmos to absolute physical unity.

The energies of nature point to the same conclusion. Light and electricity are plainly the same thing in the sun and stars that they are on earth. The various forms

of energy, chemical affinity, light, heat, electricity, are mutually convertible and are proved to be variants of one energy which is probably universal in the cosmos. Gravitation also extends throughout the known universe and binds it, with its subtle yet powerful threads, into one organism. Whether gravitation and electricity are convertible is not yet known, but they are believed to be related. These facts point to a unity of energy that pervades the universe.

As to the universality of life in the cosmos, little direct evidence can be adduced. The so-called "canals" in Mars, while accepted by some astronomers as strips of vegetation that spring up along artificial water courses and therefore as evidence of intelligent life and activity, are given a different explanation by other observers and are as yet too doubtful a basis for such a conclusion; yet it is difficult to resist the conviction, arising out of the general grounds of analogy, that the range of life and intelligence does extend throughout the universe. The universe thus reduces to unity of composition, energy, and life, and becomes a cosmos organized around one center and throbbing with one pulse. Since all its activities are phenomenal manifestations of life, thought, sensibility, and will, the meaning of the unity of the cosmos is that it is the manifestation of one life, one mind, one sensibility, and one will, and these all converge into one soul or spirit.

(2) The next general character of the soul is growth or evolution, and this fact is seen stamped upon the

world in all its parts. The plant unfolds from seed to fruit, and this instance is typical of all processes of growth, whether in a crystal or a man. The doctrine of evolution applies the same general process to the development of species. That all the multitudinous species of plants and animals are descended by genetic connection from a few ancient ancestors, or possibly from a single cell, is the accepted science of the day. Scientists differ as to the means and method of the process, but they agree as to the process itself. The same fundamental process is also applied to the origin of molecules and atoms, which are conceived as having originated out of the formless ether through ages of evolution, compared with which the ages of geological and biological evolution are supposed to be short. At the other extreme of magnitude, evolution is applied to the solar system, which has evolved out of a vast tract of star dust or meteoric matter, and the same conception is extended through the whole heavens. Thus the universe in its parts and in its totality is a growth, each stage evolving out of a preceding stage and passing on into a succeeding stage. In this respect, also, it behaves as though it were a manifestation of mind, for it exhibits on a grand scale the same processes of growth that we experience in our own souls.

(3) The world is also subject to law. The soul, as we saw before, at first appears to be a scene of hopeless confusion, but under closer examination it is found to be a scene of exact law and harmony. The world exhibits

the same features. Through all its seeming tangle and chaos of events, science has been able to trace threads of causation and succession that weave nature into one web of law and order. Even where some of the threads appear broken and the web shows gaps, it is still believed, with all the confidence of religious faith, that the threads of law maintain their continuity and the web its pattern. Nature abhors a vacuum in the reign and range of law, and the whole superstructure of science is built upon this basal faith. This fundamental fact in the texture of nature is another feature in its fabric that relates it to our mental experience and discloses its mental nature.

(4) Habit is another character we find in the soul, and the same fact broadly marks nature. Not only is the human world cast in the molds of habit, personal, social, and racial, national and international, but the animal world is also a mass of habits, which are deep grooves in which animal life moves, and of instincts, which are still deeper grooves which have been worn down through many generations. Passing into the inorganic world we find matter exhibiting the character of habit. What has been bent or creased once bends or creases more readily along the same line again, the stream carves out its own channel, nature tends ever to repeat itself, and these are hints and germs of habit. We may take a deeper look and view the very laws of the physical world as of the nature of habit. If nature has evolved atoms and molecules out of primal ether, then chemical affinity and other forms of energy may be re-

garded as habitual modes of action that nature has acquired. The whole cosmos is thus seen to be ingrained with habit, and this is another character that shows its mental nature.

(5) Freedom and purpose are still more characteristic marks of the soul that we found exhibited in nature, and we need not go over this ground again. Purpose is written broadly and brightly over nature, and freedom is involved in all the marks of mind found in nature. That freedom is not strangled by law and habit is proven in our own experience. Law and habit are not incompatible with freedom, but are the very means that reason would choose and has chosen, and so they are the grooves in which reason moves, the track along which freedom flies and finds its liberty.

Thus the same general characters that mark the soul also mark the world and add their weight to the conclusion that the phenomenal world is a manifestation of mind.

8. Man the Key of the Universe

We saw in Chapter VII that the soul is reality itself, consisting of the self in its threefold nature of thought, sensibility, and will, and characterized by unity, growth, law, habit, freedom, and purpose. In this chapter we have examined the fabric of the phenomenal world and have found it matching the soul in all these points, woven of the same threads, and exhibiting the same pattern, and thus showing its ontological cause to be of the same piece with the ontological soul of man. The

process by which this result is reached consists in starting with our own soul as this is expressed in our phenomenal bodily activities, tracing the same phenomenal activities through nature, and drawing the conclusion that as these activities manifest mind in our own body, they also manifest mind in nature. Man thus becomes the key of the universe. As he consists of an ontological soul manifesting itself in a phenomenal body, so the ontological world consists of a vaster soul manifesting itself in the phenomenal world. Man is a bit of reality that is representative of all reality, and the universal and ultimate reality of the world is thus seen to be soul or spirit. The soul of a man is a little world, and the world is a great Soul.

CHAPTER IX

THE WORLD AND GOD

We are now prepared to announce the grand conclusion of idealism: the world is the phenomenon of God. This conclusion may be unfolded under several heads.

I. God revealed in the World

(1) A phenomenon, as we have seen, is the impression made upon our minds by an objective reality. An orange is the phenomenon of an objective reality which affects our consciousness so that we experience the sensations of yellow color, pungent odor, acid taste, and hardness to the touch, grouped in spatial form. The phenomenal object is a complex state of our consciousness; and the corresponding objective reality is not an extended, colored, pungent, acid and hard lump of matter, but, as our whole argument has shown, is itself mental in nature and can only be a corresponding mental state in another mind. What is thus true of the orange is also true of the whole material universe. As a phenomenon it exists wholly in our own consciousness and is a mental state, a complex set of sensations of light, heat, color, odor, taste, and touch, projected in spatial forms and occurring in an orderly succession and forming a system.

It may be thought absurd that the whole mighty cosmos can thus be crowded into our tiny consciousness, but the difficulty disappears under reflection. Consciousness is not to be compared with the cosmos in size, for bulk is a spatial form and does not apply to the reality of either consciousness or the cosmos. The human mind, however limited it may be in power, is yet capable of grasping great ideas, and so it may hold the cosmos in its consciousness. Further, our consciousness at any time grasps the cosmos at only a few points, giving us a mere outline or sketch of the system. This outline we then proceed to fill out as our experience grows, or we fill it out in theory. Our universe is thus largely a theoretical construction, and only a few points of it exist as sensations in our minds. And finally it is evident that as a matter of fact the cosmos as we know it does exist in our consciousness. We know it only as a set and system of sensations, and these are nothing but states of our own consciousness.

The world is thus a phenomenon in our minds, but it is a phenomenon or appearance of something: what is this something? We have already seen, through the argument of Chapter VIII, that this ontological reality which is the cause of the phenomenal world, is mind, soul, spirit. The unity of the phenomenal world, as we have seen, carries with it the unity of the ontological cause, or leads to one Spirit as the agent back of the grand appearance of this world. This Spirit we call God. The world, then, is the phenomenal result of the

immediate impact, influence, or causal activity of God on our souls. God reveals himself to us as the world, and the world is our experience of God.

(2) Can we now penetrate through the world to the nature of God? The first fundamental fact we know about God from the world is that he is consciousness. Our whole examination of the fabric of the world showed its kinship with our minds, and therefore its spiritual nature. God and man are one kind of reality.

Can we now go beyond this general fact and reach the structural nature of God? Here we must proceed with becoming caution and modesty. We cannot hope by searching to find out God, and yet we may hope to get some glimpses of his nature. We must here start with the groundwork of our own soul, which is our primary and fundamental bit of reality. This bit of reality, we have a right to assume until the assumption is proved or disproved, is representative of all reality. This is the minute base line from which we project and construct the infinite nature of God, as the astronomer uses the diminutive orbit of the earth to compute the parallax and enormous distance of the stars; or as the physicist from the composition of the tiny flame in his laboratory determines the composition of the sun and stars, so from the nature of our own soul we deduce the nature of God. God is mirrored in man as the great globe of the sun is mirrored in the dewdrop.

The fundamental nature of the human soul is a three-fold structure of self-conscious thought, sensibility, and

free will, fused into personality; or personality is the selfhood of the soul unfolded into self-conscious thought, sensibility, and free will. Magnifying this structural groundwork of the soul gives us our initial conception or working theory of the nature of God, which conception is to be further tested, modified, and elaborated as we proceed. God is self-conscious thought, sensibility, and free will, fused into or forming a person.

This conception receives strong confirmation from our examination of the nature of the phenomenal world, which, as we have seen, matches this groundwork at every point. The world as a manifestation of thought, sensibility, and will, cohering into unity, is a revelation of the nature of God, which shines through this phenomenal veil or curtain. The pattern wrought in the veil, or film of our consciousness, is but the face of God impressing himself line by line and point by point upon us. In experiencing the phenomenal world we are thus gazing upon the immediate manifestation of God; we are directly experiencing his thought and sensibility and will; we are beholding him face to face. The image we thus see of God impressed upon our consciousness is an image of personality, or union of thought, sensibility, and will, and thus the process by which we project and magnify the groundwork of our own personal nature into the nature of God, is confirmed. God is a personal Spirit who thinks and feels and wills. All the thought and feeling and will we trace in the fabric of the world are the expression of his personality. Man

is the image of God and reflects his nature, as the dew-drops reflects the sun.

> Take all in the word: the truth in God's breast
> Lies trace for trace upon ours impressed:
> Though he is so bright and we so dim,
> We are made in his image to witness him.

It may be objected that this is crass anthropomorphism, or viewing God simply as a magnified man. But if we trust our reasoning hitherto, we shall not fear either the name or the fact of anthropomorphism, for we have seen that man is a bit of representative reality and the key of the universe, and as such he unlocks for us, not only the heavens, but the very nature of God himself. Of course we are not to attribute to God a gross, extended, material body, for man himself has no such body external to his soul. God is spirit, and no other kind of reality exists either in him or out of him.

We are not to suppose, however, that God is no more than a magnified man or vastly enlarged human soul. The soul is subject to growth and is found in very different stages of development and degrees of mental power. There is an enormous difference between the soul of an infant and that of a mature man, or between that of a savage and that of a philosopher. Still greater differences separate the mind of man from such soul-life as we see manifested in animals. The mind of even the highest animal falls almost infinitely below the mind of man. While it exhibits degrees of intelligence, sensibility, and will, yet these are in such a rudimentary stage that they

do not rise into self-conscious thought and free will, and so do not reach personality. Animals are at best only partial selves, and so belong to a lower order of beings than man. But now as there are orders of being far below man, may there not also be orders far above him? May there not be faculties of mind higher and more powerful than any we know, and may not these be organized into personality that lies infinitely above the level of our personality? It is not at all likely that the human soul is the topmost and ultimate blossom on the mystic Tree of Life; rather we may think of it as a bud or germ which points to a perfect Mind or Spirit in which all human limitations and imperfections are transcended so that intelligence is omniscience and will is omnipotence. The vastness and complexity and mystery of the universe point to a Mind which is inconceivably if not infinitely greater than our own. The divine Mind, or God, then, rises above the human mind into personality which is inconceivably higher and more powerful in its faculties and organization. Such a Mind transcends our mind as ours transcends that of an animal or vegetable.

We cannot conceive such a mind, because it lies above the level of our experience, and it would be a very filmy speculation by which we would attempt to penetrate into its nature. It cannot be anything lower than our consciousness, and must lie above it, and we naturally attempt to gain some hint of it by removing the limitations and imperfections from the human mind and projecting it

toward the infinite and absolute. Does God think as we think, feel as we feel, and will as we will? We must believe that God thinks and feels and wills, but not after our finite fashion. His thinking is to be conceived as being free from all human limitations. This means that the barriers of ignorance are to be removed from the divine Mind, and its knowledge is omniscient. It also means freedom from a still deeper human limitation, that of mediate thinking. The divine Mind does not use the instrumental processes of sense perception and reasoning by which we gather facts and build up knowledge, but has immediate intuition of all facts and all meaning.

Does the divine Mind think in the intuitions or mental forms of space and time as we do? God projects his thoughts upon the field of our consciousness in these forms, but are the forms purely subjective to our minds, or are they also forms of his Mind? It would be rash to give a dogmatic answer to this question, and here even speculation grows thin to the vanishing point. We cannot affirm that God thinks in terms of space or projects his thoughts in spatial forms, and it may be that this form lies wholly within the field of our human consciousness. But, on the other hand, as our minds are the offspring of his, and in some degree copies of his, it may be that the spatial form we experience is the shadow of a similar form in his experience, or, at least, is a symbol of a corresponding though higher form in the divine Mind. As to the temporal form, we have already

seen, in Chapter VI, that this differs from the spatial form in that it inheres in the reality of the soul itself, its experiences being successive, but not spatial. We have also seen that the temporal experience of the soul depends on the length of the time-span. Removing the limit from the time-span would result in a consciousness in which all things are logically successive and yet eternally present. Such a temporal consciousness, we may suppose, is a hint of that of the divine Mind. God is conscious of time, but not in time. He does not exist in temporal succession, but all temporal succession exists in him. The poet Henry Vaughn had some such dream of eternity and time in his strangely beautiful lines: —

> I saw Eternity the other night,
> Like a great ring of pure and endless light,
> All calm, as it was bright;
> And round beneath it, Time in hours, days, years,
> Driv'n by the spheres
> Like a vast shadow mov'd; in which the world
> And all her train were hurl'd.

As to feeling, we must remove from our thought of God's emotional life all the imperfections of our emotional experience. Anything in the nature of evil passion in him is abhorrent to our thought; and we must also remove all fitfulness and fickleness, uncontrolled gusts and outbreaks of feeling, irritability and fretfulness, ill-balanced and extreme or deficient emotions, personal bias and selfishness. There must be vast masses and profound depths of emotion in the life of God, pure and calm, deep and strong, rich and jubilant,

compared with which the deepest and most glorious emotional experiences of humanity are only as single gleams of light compared with the total splendor of the sun. Not only so, the emotional life of God not only rises to higher levels and fathoms deeper depths, but it also may differ in faculty and organization from that of the human soul.

The will of God must differ deeply from the human will. The human will is obstructed by barriers without and within, and must use means to effect its ends. But as the divine Mind has immediate knowledge of all things and is freed from the use of sense perception and logical processes, so the divine will must achieve its ends without the use of intermediate means. God is not hampered as we are by limited power, but all power is his, and with him thought and action, the will to do and the deed itself, are one. "God said, Let there be light: and there was light." With him, to speak is to do, to think is to create. Thought and action are fused into one stream, and instantly flow into deed.

It may be thought that a consciousness possessed of such powers of omniscient intelligence and omnipotent will cannot be called consciousness at all, and that, in particular, it cannot be supposed to have personality. Does it not differ so widely both in degree and in nature as to be something other than consciousness and personality as we know reality? This difficulty, especially as regards personality, will come up a little later, but for the present we may say that we are not without some

gleams of light. We know that consciousness exists in different degrees and that these differences may be enormous. We are able to widen out the barriers of ignorance that bound our knowledge, and we can imagine this process carried out indefinitely. Genius grasps by intuition many things that ordinary minds must reach through slow discursive processes. The gap between will and deed is also often shortened up in our human experience. A musical genius thinks and wills a musical idea and composition by one stroke of mind, and poetic thought and poetic expression may coincide in the poet's mind. We can imagine all these processes carried indefinitely towards the point where human limitations would disappear, and these forms of genius are hints and germs of unlimited consciousness. So while the divine consciousness rises above all our limitations and imperfections, yet it does not lose its fundamental character as consciousness.

(3) We have already drifted into the question whether the world reveals God as the First Cause and as the Infinite and Absolute. An old objection to the arguments drawn from the creation for the existence of God is that a finite creation cannot demonstrate an infinite Creator, but only one sufficient to produce the finite effect. This contention must be admitted as regards the cosmological and teleological arguments. Only a finite cause is necessary to account for the universe viewed as a manufactured product bearing marks of design, though such a cause would be inconceivably

vast. Yet we do not reach any real explanation of the world as long as we simply trace it back to a finite cause, for such a cause must itself be accounted for, and thus we are driven back along a line of endless regression. The only relief from this regress is belief in a First Cause or uncaused Cause that stands as the origin and explanation of all beginnings and evolutions. The universe is a vast complex of dependence in which every part depends on every other part, and its state at one moment depends on its state the preceding moment, and so on endlessly backward. Such a universe demands an independent and absolute Cause as its logical counterpart and explanation. Without such a First Cause the whole structure of our experience and thinking would be left baseless and unexplained; and thus the whole value of our constructive thought is pledged to such a Cause, and we are justified in believing in it as confidently as we believe in any conclusion of our reasoning. It is true that such a Cause is a mystery, but we must rest in mystery somewhere and cannot explain our ultimate explanation. The First Cause is the one great and final mystery that gathers into itself and explains all other mysteries, and back of this mystery we cannot ask to go. We understand all things as manifestations of a Cause which we cannot understand.

Finite dependence thus leads to the Absolute, or the Cause that is loosed from all dependence or relations, as the word means. In a similar way, the finite leads to the idea of, and to necessary belief in, the Infinite, which

is the Cause that has no bounds to its reality, but includes all possibilities of being. By a logical necessity of thought we reach or intuitively possess the idea of, and belief in, the First Cause, the Absolute, and the Infinite; and the arguments from the nature of the world show us that this First Cause is endowed with self-conscious thought, sensibility, and free will, and is a personal Spirit, or God.

(4) We are now again confronted with the difficulty that is alleged against the Absolute and Infinite as being inconsistent with personality. Personality, it is said, implies limitation. It is conditioned on the necessary relation of the self to the not-self, and, more definitely, of subject to object. There can be no personality without self-conscious thought, and there can be no thought without a subject that thinks and an object that is thought about. Thus personality is limited in its very constitution by the not-self that must stand over against the self, and by the object that must stand over against the subject. But the Absolute, it is said, by its very definition cannot permit a not-self, which would reduce it to subjection to relation, and the Infinite cannot admit an object, which would limit it as subject. This difficulty is more verbal than real; it grows out of our definitions rather than out of our experience. The Absolute is not necessarily that which is released from all relations, but that which is released from all necessary relations or dependence imposed upon it from without. It may itself initiate any relations it chooses, and still be

absolute, for such relations are not imposed upon it so as to destroy its absoluteness, but it constitutes them and so remains absolute over them. If the Absolute were denied or lacked the power of constituting relations, such inability would itself limit and thereby destroy the absoluteness of the Absolute. In a similar way, the Infinite is not that which has no limitations, but that which has no necessary limitations imposed upon it from without. It still has the power of setting up limitations to its own action, but such limitations are still within its power and are not real limitations to infinitude. The lack of such power would be a real limitation to the Infinite.

Personality is not a limitation, but an added power. The opposition of self and not-self is not a necessary relation. This relation is generally present in our human experience. Our consciousness of self, though it begins with, yet does not depend on, our consciousness of a not-self, but is an immediate experience; and we can conceive all other beings blotted out of existence and our solitary self remaining. The opposition of subject and object is a necessary relation of personality, at least in our experience of personality, but this relation may be internal to the constitution of personality itself. The self is at once subject and object, and thus experiences this relation in itself. The infinite personality of God may be based on this relation and yet not pass into dependence on any external object.

Personality is the power to know and feel and act,

and this ability is not a limitation, but an enormous expansion of power. The absence of such power would be a limitation and loss beyond any other conceivable loss. In the human soul personality is fettered by the limitations and imperfections of its finite conditions, and the struggle of the soul in its development and education and passionate ambitions is to break through or widen out these limitations. We can conceive of freedom and power of personality higher than any we have attained, and we long to climb this height and reach this freedom, and at times we beat against the bars of our limitations as birds against the wires of their cage. Now these limitations do not exist in the personality of God. He has personality in full infinite perfection and freedom and power. What exists in us only as a tiny seed or feeble germ of personality, exists in him in the glorious flower and perfect fruit. We are but pale shadows of his substance, faint gleams of his glory.

This is the reasoning of Lotze in his great chapter on "The Personality of God" in his "Microcosmus." "Perfect Personality," he says, "is in God only, to all finite minds there is allotted but a pale copy thereof; the finiteness of the finite is not a producing condition of this Personality, but a limit and a hindrance to its development." To the same conclusion comes Professor Borden P. Bowne in his "Theism." "On all these accounts," he concludes, "we regard the objections to the personality of the world-ground as resting on a very superficial psychology. So far as they are not verbal, they arise

from taking the limitations of human consciousness as essential to consciousness in general. In fact, we must reverse the common speculative dogma on this point, and declare that proper personality is possible only to the Absolute. The very objections urged against the personality of the Absolute show the incompleteness of human personality. Thus it is said, truly enough, that we are conditioned by something not ourselves. The outer world is an important factor in our mental life. It controls us far more than we do it. But this is a limitation of our personality rather than its source. Our personality would be heightened rather than diminished, if we were self-determinant in this respect. Again, in our inner life we find similar limitations. We cannot always control our ideas. They often seem to be occurrences in us rather than our own doing. The past vanishes beyond recall; and often in the present we are more passive than active. But these, also, are limitations of our personality. We should be much more truly persons if we were absolutely determinant of all our states. But we have seen that all finite things have the ground of their existence, not in themselves, but in the Infinite, and they owe their peculiar nature to their mutual relations and to the plan of the whole. Hence, in the finite consciousness, there will always be a foreign element, an external compulsion, a passivity as well as activity, a dependence on something not ourselves, and a corresponding subjection. Hence in us personality will always be incomplete. The absolute knowledge and self-pos-

session which are necessary to perfect personality can be found only in the absolute and infinite being upon whom all things depend. In his pure self-determination and perfect self-possession only do we find the conditions of complete personality; and of this our finite personality can never be more than the feeblest and faintest image."

This reasoning turns the very objections that are urged against the personality of the Absolute into arguments for such personality, and uses them as means for raising the personality of the Absolute to infinite perfection. We may call such personality "suprapersonal," with Paulsen, or "hyperpersonal," with Spencer, and it will still retain its fundamental character; and it obviously points to the Christian doctrine of the Trinity, which, as compared with human personality, is a higher and more complex and infinitely perfect constitution of the Godhead. We even may find a faint copy of such a complex constitution in the human soul, for its threefold powers of thought, sensibility, and will correspond in a measure with the three persons of the Godhead — Father, Son, and Holy Spirit. The tripartite nature that is outlined in us may exist in the Godhead in such a complex constitution or society of persons as is symbolized in the doctrine of the Trinity.

(5) Can we now, on the basis of the revelation of the phenomenal world, make any affirmation as to the moral character of God? We have seen that the phenomenal world contains ethical elements of benevolence and righteousness. These ethical elements must have their

roots in God, and so far are the outflowering of his moral character. All the goodness and joy that suffuse and at times run riot through nature, flow out of his nature, and the motherhood and all the altruistic affection and sacrifice seen in nature are precious drops or rich streams of love out of his heart. The righteousness that is manifested in the order of the world, its truth and honesty, its reward for virtue and retribution for vice, are exhibitions of his moral nature. These reflections of the divine character in nature are necessarily faint, for the ethical elements of life in the phenomenal world sink to a low tide and grow dim. But ethical life rises to a high tide and grows resplendent in man; and man as a constituent of the world is a fuller manifestation of God, especially of his moral character, than the dim deeps of nature. The conscience which is the crown of man points to a similar though infinitely higher moral nature as the crown of God. All the moral glory of our life is but a faint gleam of the splendor of his perfection. In him the ethical nature, freed from all finite limitation and stain of sin, rises to its full infinite perfection and glory. God is infinite, not only in intelligence and feeling and power, but also in truth and righteousness, goodness and love.

But if the goodness in the world and in man is rooted in God and manifests his moral character, does not the evil in the world and in man spring from the same source and cast grave shadows on the divine character? This problem will come up for discussion in the next chapter.

2. God as the Cause of the World

The world, as we have seen, bears the marks of being a product or manufactured article. It is evident to our immediate inspection that it is not a First Cause, but a late link in a chain of causation which must run back to a real First Cause on which it hangs. This First Cause, as we have seen, is God, who is posited or assumed as the beginning and primal mystery of all finite things.

(1) The world is produced by God's agency. We must guard ourselves at this point against supposing that the world has been created and thrown out into independence of, or separateness from, God. Our habit of thought conceives the world as a reality out in space, external to and separate from God and from our spirits, as though it were a great mass or lump of matter between God and us. This view of the world has gone to pieces under examination, and we now see that the world is not something external to God and thrust between him and us, but is God's own thought and feeling and deed, a vastly complex state of his infinite consciousness. It is therefore internal or subjective to God, and becomes subjective to us by reproduction in our minds. God's causation of the world, therefore, consists in his thinking, feeling, and willing the world: thinking it as an intellectual construction, feeling it as a vast and rich emotion, and willing it as a mighty deed.

(2) Such causal agency is to be conceived by us as reflected or symbolized in our own causal activity. We

have seen in Chapter VI how the mind frames objects of thought, meaning, and will by its own creative agency. We are constantly engaged in such causal production, constructing our ideas and plans, and such activity is universal in the experience of men. But we can see it most vividly illustrated in the case of minds of supreme genius. The great poet, painter, or musician calls into existence a beautiful intellectual conception or a masterpiece of painting or of music by an act of his total soul whereby he almost at one stroke thinks and feels and wills his poem or picture or symphony. This creation at first exists wholly in his consciousness, and is a purely spiritual product. Afterwards the creator may fix it in some material form; that is, he may cast it in the mold of the world, which is a manifestation of God's thought. By this means he may be said to stamp his thought upon the divine thought as a more stable medium and means of expression and of sharing it with others and of perpetuating it. But at its first creation it exists wholly in his mind as a purely mental reality. As long as it is kept subjective, it is made stable as a permanent object only by being rethought, refelt, and rewilled. The mind continually reproduces it, or it lies dormant in the memory, and the object may thus remain fixed in the mind for years and never be cast in any material form.

Applying this principle to the divine Mind, we may conceive of God as thinking, feeling, and willing the world by a total act of his consciousness and holding it in a state of stability by constant repetition. Looked

at in one swift glance, the world seems to stand static and fixed. A second glance shows many of its parts in action, but many other parts still seem motionless. Yet we know that everything is in a state of constant flow. The river, which at the first glance looks like a fixed and identical body of water, is ever flowing by and is composed of different water every hour. The sunbeam, which as it lies across a dark room looks like a solid bar of gold, is a stream or series of inconceivably rapid vibrations and is a new sunbeam every infinitesimal fraction of a second. We speak of "the everlasting hills," yet the hills and mountains and all the physical features of the globe are in state of flux. A block of granite or bar of iron, which seems stable as though it were a changeless substance, is yet as surely a stream or series of changes as is the river or the sunbeam. Its atoms or electrons are the ether in motion, or are whirls of pure energy, and the stability of the granite or iron consists in the constant repetition of these vibrations. The stability of the world, then, consists in the fact of its being constantly thought and felt and willed in the divine Mind. The resolution of the world into ether whirls in constant activity brings us close to the fact that God is constantly willing the world, for the ether appears to be nothing else than the will of God. A permanent object, then, such as a star or a stone, is stable because God is constantly repeating the thought and feeling and volition that constitute it; and the whole world derives its stability in the same way.

(3) This conception throws light upon the nature of causation. It is a mental act of the same nature as our will. Our only means of understanding it is through our experience of our own causal activity in the exercise of our will, and we cannot attach any other meaning to the word "cause." It follows that there is no causation in the phenomenal world in itself, but that phenomena only reflect or symbolize the causation that is operating in the ontological world in God's mind or in other minds. It seems one of the most certain things of our senses that when a hammer falls on a stone, it is the hammer that breaks the stone, or that it is the sun that warms the earth, and the seed that produces the tree. Yet our course of reasoning has shown that these objects in the phenomenal world are states in the mind of God, and that it is his mind that is producing these objects in the order of their relations and changes, and not the things that are producing the changes in one another. As a musician plays on an instrument the notes do not produce one another; the first note or chord does not produce the second, and so on; but all the notes issue from the instrument as their common cause, and the real cause of the music is the musician, who sends it out of his soul. The parts and colors of a picture do not produce one another, but they all spring from the painter's hand. The words of a poem do not create one another, but all are shed from the poet's pen. Our thoughts do not cause one another, but they all issue from the mind as their common cause. Now the things

of the world are the symbols of God's thoughts, and as such they do not cause one another, but all are caused in their mutual relations by the one mind of God. Causation is thus a purely mental act, and is never a force operating in the phenomenal world, but is always a mind or will acting in the ontological world.

(4) With this conception of causation in mind, we may now look more closely into the relation of God to the world. All the changes in the phenomenal world symbolize corresponding relations in the divine consciousness. The fact that all phenomenal changes are interrelated so that a change at one point involves an adjusting change throughout the whole system of the world, the displacement of one atom displacing all the stars, means that God's thoughts are logically related and interlinked in a system so that a change in one thought precipitates or carries with it an adjustment of his whole consciousness. This conception is the symbol under which we must conceive the unity of the divine consciousness, though we must not forget it is a symbol and not suppose it literally represents the transcendent consciousness of God.

The phenomenal world exhibits the processes of growth or evolution in its parts and in its totality. This fact points to corresponding processes in the divine Mind. The consciousness of God is not held in eternal static fixity and finality, like a vast ocean frozen solid, but within its eternal time-span it experiences all the temporal activities and evolutions of the world. His thoughts are

developed into their logical relations and pass from ideal to realization and from germ to fruit. The consciousness of God is thus being differentiated into all the infinite variety and richness of thought, feeling, and deed that are symbolized in the phenomenal world.

The laws of the phenomenal world reflect modes or habits of the divine consciousness. The question whether these laws are rooted in the divine nature and are its necessary and eternal expression, or are only determinations of the divine wisdom and will, is one that must elude us, at least in many points. Some of the laws of the phenomenal world, such as mathematical relations, are also laws of the ontological world as we know this world in our own minds; and such laws, we may suppose, are essentially inherent in the divine nature and could not be altered by the divine will. In a similar way the moral laws of truth and righteousness lie below the divine will and are embedded in the divine nature. But as to the physical and vital laws of the phenomenal world, we cannot make this affirmation. We cannot assert that of necessity gravitation must universally act directly as the mass and inversely as the square of the distance, or that the laws of chemical affinity, light and heat, and of biological growth must be as they are. These may be expressions of the necessary nature of God, in which case the world could not have been built on any other lines or laws than its present structure shows, though these laws might have been combined into different patterns. On the other hand, we are in-

clined to think that these laws are determinations of the divine wisdom, in which case they might have been determined differently and the world might have been built on lines of gravitation, chemical affinity, light and electricity, life and growth, very different from those we know, resulting in a wholly different world or worlds. There may be such worlds now, and the totality of God's thoughts and deeds may infinitely exceed not only our experience, but all our possible conceptions.

From this point of view the present laws of our world are of the nature of habits rather than of finalities necessarily grounded in the eternal nature of God. Now habits are subject to change and readjustment. The same wisdom and will that shaped them to its ends can reshape them to new ends. The divine nature is eternally fixed, but the divine habits, however changeless they may seem to our short vision, are yet plastic to the divine wisdom and will. Gravitation and all the physical laws of nature may never vary so far as we can test them, but God may vary them at his pleasure on sufficient occasion or ground. The laws of God's nature are eternal and are not subject to his will, yet these laws do not fetter the freedom of his will, for they are just the way his will wants to act. But the laws determined by God's will and wisdom are flexible, and instantly adapt themselves to his purposes.

The phenomenal world, then, is not an eternal prison house of God, but is the expression of his freedom and ever fits his purposes, as the skin fits the human body.

If God has occasion to work what would be a miracle in our eyes, he can do so without violating any essential law of his nature, either by combining the laws known to us in a new way that would be miraculous to us, or by using some law as yet hidden from us, or by modifying for the occasion one of the laws of his will or one of his habits. Whether he ever does change a law of his will or modify a habit, is a question of evidence; but the divine power to do so cannot be denied by science, and is affirmed by philosophy.

(5) In the light of these speculations, in what sense or degree does the world become objective to the mind of God? As a construct of his own mind, it is an object to his consciousness. The relation of subject and object is known to us in our own mind. We construct a thought as an intellectual concept, suffuse it with emotion, and cast it into the form of a determination; and all this may take place wholly within the field of consciousness. Such an object, as a mathematical proposition, a poem, musical melody, or a life-plan, may persist in the mind for months or years. Though it is not always in the focus of consciousness, yet it is present in the mind as a part of its mental furniture. The same principle, set free from human limitations, gives us a faint conception of such objects in the divine Mind. God has the power of framing his ideas into a construct or object of thought, filling this object with emotion and casting it into a deed, and holding it steadily in his consciousness; and thus this point

in his consciousness becomes an object to his selfhood acting as subject. Does such an object ever in any degree become separate from God? It could do so only by becoming a personal being, which by its nature would attain a degree of independence and isolation. The mark of personality is inner life of its own, selfhood unfolding into thought, sensibility, and will. In the higher animals we see the phenomenal symbols of some degree of such inner life, though it does not reach full selfhood. Hence Lotze makes the suggestion that animals are partial selves, centers in the consciousness of God that have developed towards and attained some germ of personality, though still falling short of it and therefore still included within the consciousness of God, but on its margin, so to speak, or near the point of separation. In the case of lower animals, vegetables, and inorganic matter our reasoning would lead us to think of them as being less and less developed as centers of life and as being more and more deeply embedded in the universal life of God. But they still have such individuality in the consciousness of God that they are objects of his thought.

At this point we are prepared to give an idealistic definition of matter. Matter is a mode of the divine activity, existing only in and for intelligence; primarily in the infinite Intelligence, and secondarily in finite intelligences.

This view of the divine Mind raises the question whether there are in it degrees of consciousness, such as we ex-

perience in ourselves when from a full vivid tide our consciousness sinks into the dimness of sleep or into the lower depths of relatively unconscious or subliminal mind. We have seen that the world exhibits lower and lower degrees of thought and sensibility and will as we descend its scale from our own bodily activities into the movements of inorganic matter, which symbolize dim deeps of mind. Are these deeps only relative to finite creations, or do they reflect or symbolize a vast abyss of low consciousness in the divine nature? We cannot admit this latter alternative. These obscure deeps are germs of inner life which are the beginnings of the evolution that culminates in man. But there are no such dark depths in the divine nature, and it is pure consciousness at full tide throughout its whole being. "God is light, and in him is no darkness at all."

3. God and Man

What is the relation subsisting between God and man?

(1) God creates the soul of man and all finite spirits. This follows from the finite dependent nature of the human soul. It bears the marks of a derived origin as certainly as the phenomenal world itself. This relation is an ultimate fact which we must accept without further explanation. Yet the process of this origin is not altogether hidden from us. The human soul comes from God as his creation or offspring, but this origin does not exclude intermediate steps. The soul comes into being

in the phenomenal world through a process of evolution. There is a stage of gestation buried deep in the phenomenal body, and out of that mysterious depth the human soul emerges as a germ which begins to unfold into selfhood and conscious life. What is the nature of this phenomenal process when it is interpreted in terms of the ontological world? We have seen that things are centers of consciousness in the universal mind of God around which his thought and feeling and will are organized, and that these centers develop towards selfhood, which is the limit or point where they are endowed with an inner life of their own and become psychologically detached from the divine Mind. Animals are partial selves, beings in the consciousness of God that are on its margin, so to speak, and near the point of detachment. On this view human souls have reached the point of separation from the divine Mind and have passed into personality. God has breathed into them his full breath and blown them into full-orbed selves, having a subjective life of their own. The process of development in the phenomenal world symbolizes this process of development in, and detachment from, the divine Mind by which the human soul reaches selfhood.

Yet we are not to suppose that human souls ever become ontologically separate from God. Such separation would break the unity of being and drive a cleft into the universe. God must ever remain the all-inclusive being, and all his creations are still retained within his infinitude. This relation of God and finite spirits is one

of reciprocal immanence. God is in all souls, and all souls are in God. Yet this mutual immanence does not merge or blur the borders of personality either in God or in human souls.

Such a relation may be illustrated from the nature of infinite mathematical series. The series 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, . . . is an infinite series. By taking every second term of this series we get the series 1, 3, 5, 7, 9, ... Every third term gives the series 1, 4, 7, 10, ... An infinite number of such subordinate series can be constructed, all of which are contained within the original series and all of which are also infinite. The original series may be called, in Spinoza's term, "infinitely infinite," and the derived series may be called subordinately infinite. If we hold all these series as purely mental constructions in our minds, and, in fact, they are such constructions, then we have one infinitely infinite spiritual entity including within it an infinite number of subordinate infinite entities. The original series gives birth to, or creates, the subordinate series and determines their nature and laws at every point; and the subordinate series are derived from, and dependent upon, the original series throughout, so that in it they literally move and have their being. The two sets of series, the original infinitely infinite and the derived subordinately infinites, interpenetrate each other throughout their whole being, or are reciprocally immanent.

If we now transfer this mathematical relation to God and human spirits, we find it parallels their relations in a

remarkable way. God is the infinitely infinite series, without beginning or end and containing all possible terms and relations, powers and activities. Human spirits are the derived subordinately infinite series; for the human soul, being in the likeness of God, has infinite powers, paralleling those of God, or powers of infinite range and permanence. Yet the human spirit is also finite in that it touches God at comparatively only a few points and has but an infinitesimal part of his capacity and power. As the original infinitely infinite series creates and determines the derived subordinately infinite series, so God creates human souls and determines their nature and laws throughout the whole range of their being. And as the two sets of mathematical series interpenetrate each other and yet each remains distinct, so God and human souls are reciprocally immanent and yet they retain their respective personalities.

The same illustration may be applied to orders of creatures lower than man. If an extraordinary human soul or great genius be represented by a subordinate series touching the original series at every thousandth term, and an average human being by a series touching the original at every ten thousandth term, then an animal might be represented by every millionth, a vegetable by every billionth, a crystal by every trillionth, and the ether by every quadrillionth term in the original series. The decreasing number of terms at which these subordinate series touch the original series corresponds with the decreasing number of points at which

these creations, descending from the highest human spirit to the lowest term of matter, touch the divine Spirit; or it corresponds with their decreasing inner life. Yet all these creations are determined by the infinite Spirit and are dependent upon and included within it, as all the subordinate mathematical series are determined by, and included in, the original series. God is in all creatures, and all creatures are in God. God and his world are reciprocally immanent throughout, and yet God retains his distinct personality and power, and all his creatures retain their respective capacities and degrees of development.

We may illustrate the same relation from our psychological experience. An object of experience is sharply delimited within the field of our consciousness; yet it is in our consciousness and our consciousness is in it in reciprocal immanence. In a somewhat similar way God holds all his states, and all finite spirits, which constitute his world, in his infinite consciousness or self, so that he is in them and they are in him in reciprocal immanence; yet both he and they retain their respective individualities.

It follows from this view that man is a child of God, framed in his own image. God has breathed his own breath into human souls, and they awake in his likeness, having faculties of thought and sensibility and will that run parallel with his own. Though God is infinite in his nature and faculties and thus infinitely above man, yet his infinite nature has been reduced to finite limita-

tion in the human soul, which is thus, subject to this condition, a true reproduction and copy of the divine Mind.

(2) What, then, is the relation of the human body to God, on the one side, and to the soul, on the other? We have seen that the body is a unit in the great stream of the phenomenal world. It has all the attributes and obeys all the laws of this world. It affects our senses of sight, sound, odor, taste, and touch, and is subject to light, heat, electricity, chemical affinity and gravitation, and thus it is proved to belong to the phenomenal order. At the same time it is equally proved to be allied to the soul in special relations. It is the channel through which the phenomenal world pours its streams of activity in upon the soul and through which the soul pours its activities out upon the world. It is the agent that immediately acts upon, and is immediately acted upon by, the soul, and thus it is the medium of communication and action between the soul and the world and between the soul and other souls. Now as the world is the organized thought and sensibility and will of God, the manifestation to us of his consciousness, the body is a specialized unit of God's consciousness or life adapted to the nature and needs of the human soul. The body is the point of contact at which, and the means by which, God impinges on our spirits, and our spirits impinge on his Spirit. When God in his world operates upon us, he does so through the body; and when we operate upon the world or upon one an-

other, we do so through the same medium. The body — an ontologically mental organism — is so interlaced and welded together with the soul that it can immediately affect it with its causal activity, and, conversely, the soul can causally affect the body and, through the body, the world. The soul does not appear ordinarily to have power over the world directly, but only through the body, and, conversely, the world ordinarily affects the soul only through the body. When two persons know and affect each other, they do so through the intermediary links of their bodies and the world, which, being interpreted, means that they can know and affect each other only through God. God is the universal medium in whom we live and move and have our being, and all our objective knowledge and activities are mediated through him.

(3) We may now attempt a fuller statement of the relations of God and man. God is the creative source and constant background of man's life. The human soul, coming up out of the depths of God's life by a process of evolution, has reached and passed the point of detachment from God's selfhood and attained unto its own selfhood or personality. It therefore maintains its own inner life of thought and sensibility and will and is charged with its own sovereignty and responsibility. The line of demarcation between God and the human soul runs between the soul and the body, the body being a specialized adaptation of God's life to the needs of the human soul and the special instrument of

the soul for its communication with, and operation on, the world, including other human beings. God's infinite consciousness includes man's consciousness in the sense that it embraces it in its knowledge and overrules it in accordance with its omniscient and omnipotent purpose. Yet the states of the finite human consciousness are distinct from the divine consciousness, and maintain their own relative freedom and responsibility. Communication and fellowship are possible between God and man because of their fundamental identity in nature, both being spirit, the infinite creative Spirit and the finite dependent spirit. Human minds hold communication and fellowship with one another through their phenomenal activities of language and bodily movements, which are symbols of their inner states. God communicates with the human soul through the phenomenal language of the physical world, which is a grand bible revealing God to man.

But God also has deeper and more intimate and vital access to the human soul. It may be that human souls themselves in extraordinary states or conditions have a more direct communication with one another than through phenomenal symbols. There are strange facts connected with telepathy and related psychical phenomena that seem to point in this direction and may yet disclose a deeper world of human consciousness and communication. Much more does God have immediate and full access to human souls, and can suggest his thought and will to them through their faculties

of reason and conscience and will. Thoughts have ever irrupted into the human mind that have been attributed to the inspiration of God. There are experiences in which man believes that God is speaking to him through conviction and vision as surely as father to a child. "There is a spirit in man: and the inspiration of the Almighty giveth them understanding." The prophet and poet and man of genius whose lofty and sensitive souls are quick to catch heaven's light are specially open to divine communication, but the same inner light "lighteth every man that cometh into the world." The infinite Spirit of God is ever pressing upon the human spirit, endeavoring to penetrate and fill it, to free it from error and evil, to purify and deepen and ennoble it, and thus to develop it into ever larger and richer life. And yet through all these processes the Infinite respects the limitations and freedom and responsibility of the finite. The whole organism of humanity is thus environed and saturated with the Spirit of God, and under this divine impact and pressure, humanity develops and advances into fuller and nobler life.

Man also has access to God in thought and desire, prayer and worship, fellowship and obedience. In so far as he finds truth, he is thinking the thoughts of God, and thus all human knowledge is a form of acquaintance and fellowship with him. All the investigations of science and constructive systems of philosophy and glorious achievements of art are more or less direct ap-

proaches to God's mind. God is the field of all unexplored knowledge, and all our attempts to burst the barriers of ignorance and mystery are endeavors to know more of him. In thus thinking the thoughts of God over after him, we are entering into larger fellowship with him. Man also has a deep primal instinct and impulse to seek God in prayer and worship. He speaks to him with the confidence of a child to a father, and pours out his soul before him. He confesses to him his open faults and most secret sins, and beseeches him for pardon, purity, and peace. He looks for indications of God's guidance, and follows the gleam. "Thou wilt light my candle." He catches from God visions of law and right, ideals of perfection, of duty, of service and sacrifice, of battles to be fought against hosts of darkness, and of a kingdom of light and truth, brotherhood and love, to be built; and he girds himself up for the service, throws himself into the battle, and pours out of his heart the last drop of sacrifice. Thus man grows in fellowship with God and towards the divine likeness, and ever tends to come unto a perfect man.

This promising picture of human coöperation with God and struggle towards perfection is marred by the dark fact of opposition to God in so far as men in their blindness or their willfulness resist truth and right and introduce disorder and ruin into the world. But the broad fact remains promising and opens before us a vision of growing coöperation between God and man,

moving towards ultimate harmony, the realization of the brotherhood of man and the kingdom of God.

4. Summary of Idealism

It may be well at this point to gather up our reasonings and results and present them in a summary of idealism.

(1) Let us suppose that the only existent beings were God, the infinite Spirit, and finite spirits, such as human souls, so that the universe would contain nothing of the nature of extended insensate matter, and there would be only a universe of pure spirit or mind. Let us further suppose that God were to create in or impress upon our finite spirits the whole set and system of sensations we now experience in their present groupings and order of succession. This supposition gives us, in rough outline, Berkeley's idealistic theory of the world. A little reflection shows us that we could not distinguish, by any sense test, such a world from our present world viewed as an extended mass of insensate matter, or viewed according to the theory of dualism. For according to the supposition we would experience all our present sensations of light, heat, color, sound, odor, taste, and touch in their present groupings and order of succession; that is, we would experience the sun and stars, sea and land, vegetables and animals, and have all our sensational experiences just as we do now.

Modern idealism constructs its theory of the world on essentially the same lines as Berkeley's theory, but with important modifications or further elaboration. Berkeley

viewed God as impressing ideas upon us by an arbitrary creative act, as though the world were a mere play produced in us for our entertainment, and not something rooted in the nature of God. Modern idealism views the world as the manifestation in us of the world which God himself experiences. According to this view, the world is God's own thought and feeling and will. He thinks the world as a construction of intellectual relations, feels it as a vast mass of emotion and wills it as a mighty deed. Yet as thought, feeling, and will are purely spiritual states and exercises of mind, his world is a purely spiritual product and is an infinitely vast and complex and rich state of his infinite Spirit. This world thus springs out of God's constitution, and is his eternal expression of himself and his blessed activity and joy.

In addition to this world, which is subjective to himself, God creates or posits finite spirits, such as human souls, which are, in the psychological sense, objective to himself. They are formed in his own image with a constitution which is a finite copy of his. They are entities or realities in themselves, with an internal life running parallel to God's experience according to their finite capacities. God acts upon our human souls causally, and under the play of his activity we experience the world, which is a reproduction, more or less symbolic, in our minds of God's own world. But as the divine world is purely spiritual, a mental state or subjective play of the divine constitution, so is our world purely

mental, a series of mental states that occur in us on occasion of the divine impact or causal activity. The nature of this divine activity operating immediately upon our souls is unknown to us, but may be conceived as being somewhat analogous to the action of our own wills.

The objects we experience in our minds, then, are not copies of objects in an external and extended world, but are subjective sensations fused into mental unities or constructs and grouped or cast in spatial forms. As the mind is not an extended reality and none of its thoughts, feelings, or volitions is extended, there is nothing ontologically extended anywhere, and extension is an intuition or form supplied by the mind and imposed upon its experiences. This was the great discovery of Berkeley, and has been accepted and elaborated by Kant and by all subsequent idealists.

The mechanism of the universe, then, is to be conceived somewhat as follows: As the divine Mind acts upon the human mind, the human mind thus stirred into activity acts according to its own constitution and constructs its own objects of experience and projects them in spatial forms. Human objects of experience are thus copies or reproductions of divine objects of experience, allowance being made for the difference in degree and nature between the divine and the human minds. When we perceive a flower or a star, for instance, there is no external extended flower or star which we are perceiving and copying in our minds, but there is in the divine Mind

a flower or star which is God's thought and feeling and deed; this acts upon our mind so as to stir it into action, and then it erects and projects the flower or star which is our own experience.

The objects we experience as the world are primarily points in the consciousness of God, things he thinks and feels and does. While these objects cannot exist as extended insensate realities and cannot exist spatially separate from God, he may organize his consciousness into centers or systems that may be viewed by him as points or modes of experience objective to his mind, after the manner in which we view our ideas as objective to our minds. In this sense the whole universe may be regarded as objective to God. But it is still a mode of the divine consciousness, and is purely spiritual in its nature. Things are therefore centers in the divine consciousness, which according to their complexity have reached different degrees of organization. The higher animals are partial selves, objects in the divine mind that have reached such a degree of organization that they are near to selfhood and separation from the divine mind. Human souls have completed the process of reaching selfhood and have attained that psychological separateness from God that constitutes them responsible beings, centers of consciousness unfolding into thought, sensibility, and will, or personalities. This is the idealistic construction of the world.

(2) The argument for this view starts with the soul itself as a piece of reality which we immediately know.

This is the *pou sto* on which the idealist takes his stand and from which he proposes to move the world. His short argument at this point is that of Descartes: "I think, therefore I am." This bit of reality is undoubtedly spiritual in its nature. Its essence is consciousness, unfolding into thought, sensibility, and will, fused into personality. None of the qualities popularly attributed to matter inheres in the mind. It is not colored, or sonorous, or odorous, or sapid, or hard; and it is not extended; that is, our sensation or experience of redness is not red, of sound is not sonorous, of sweetness is not sweet, of hardness is not hard, and of length and breadth is not itself long and broad. When we experience a circle or a square there is nothing round or square in the mind or even in the brain. Color is in the mind as a form of experience, but the mind itself is not colored. Space is in the mind as a form of experience, but the mind is not spatial and is not in space at all. All this is matter of direct introspection and immediate experience and is not disputed among pyschologists. We thus encounter the fact at the outset of our investigations that our own mind is a purely spiritual world; yet it is in the mind that we really live and we never get outside of it. If, then, any one objects that a wholly mental world is inconceivable and that we could not live in it, he is reminded that he already lives in a non-spatial mental world in his own mind, and yet he is not troubled or inconvenienced by the fact.

The fact that the first bit of reality we undoubtedly

know is spirit, raises the presumption that other reality and all reality is of the same nature, and we now set out to test this presumption. We examine the outer material world by all possible means to determine, if we can, its nature. We discover at once that the secondary qualities of matter, the color, sonorousness, odor, taste, and touch which are popularly attributed to and so obviously appear to inhere in it, are not attributes of matter, but sensations of mind. The grass is not green: all that the physicist can find there is a mass of minute particles or molecules in a state of vibration. Such motion has no likeness to greenness, which is an experience of the mind or mental state. So is it with all the other secondary qualities, sound, odor, taste, and touch: these are all impressions made on the mind by some outer reality whose nature at this point of the investigation is unknown. This much is commonly admitted by dualists themselves. But the same reasoning shows that the primary qualities of matter, namely, space and time, are subjective states in the mind also. Extension is not something that could be transmitted to the mind through the senses. No extended matter streams in through them, but only modes of motion which are transmitted along the nerves by some unknown kind of action, which in the brain is translated by the mind into the experience of extension. But no one supposes there is anything extended in the mind or that anything extended could enter the mind. Extension, then, like color and touch, is an experience occasioned in the mind by some

reality whose nature at this point in our inquiry has not been reached. We do not experience objective space, but we spatialize subjective experience. Time is also an experience inherent in the mind. All of these qualities (except time) are phenomena in our minds; that is, appearances caused by some reality acting upon our minds.

The great question of metaphysics is the nature of this reality acting upon us, in which we are environed. We try to penetrate to this nature through the veil of the phenomenal world, and especially do we try to unlock the secret of this world by using the key of our own nature which we immediately know to be spiritual. Examination shows that the world bears three great marks of mind. First, the world is marked by thought. It can be understood in terms of mind. This is the whole meaning and search of science. Science reads the world like a book and finds it intelligible in every part. It is essentially an intellectual fabric woven of mental threads throughout. It thus matches our minds and is an appeal of Spirit to spirit. Second, the world is marked by sensibility. As all its forms and activities express thought, so do they express feeling. It is stamped with sublimity and saturated with beauty and drenched with music down to its very atoms, and all these are manifestations of emotion. What causes feeling in us must itself feel, and at this point the world is another appeal of Spirit to spirit. And third, the world is will. When our will presses against the world, the world presses against our will; that is, it acts exactly

like another will. The world manifests itself to us at all points as activity, and this is the essential nature of will. We never catch the world except when it is doing something to us. The physicist resolves the world into energy, and this, again, is of the nature of will. The world behaves in every respect as though it were a mighty will, and this is another appeal of Spirit to spirit. There are five general characteristics of mind: unity, growth, law, habit, and purpose; and these all are stamped upon and woven into the texture of the world and reveal its spiritual nature. Matter is a mode of the divine activity, existing only in and for intelligence. The world thus has the marks of spirit and matches our spirits as an infinite Spirit from which we are derived and in which we are environed.

This summary is a mere hint both of the nature of idealism as a theory of the world and of the reasoning by which it is established. It hardly need be said that the proof of this system or of any system of philosophy cannot be absolute and final but only proximate and probable. This line of reasoning does not reach demonstration, but it does reach such persuasion and proof as convince many thinkers. It does not solve all problems and is attended with great embarrassments, but it has fewer difficulties than any other theory, and any other construction of the world goes down under the attacks of critical thought. It may be only a dim glimpse of the truth, but it appears to be a surer word of prophecy than any other that has yet been uttered.

(3) Let us compress the matter into the fewest words as a final summary. God is the original, underived, infinite Spirit, and finite spirits are derived from and dependent upon him. The world is God's consciousness organized into a system of thought and sensibility and will, and is his own constitution and eternal employment and enjoyment. Things are centers in the consciousness of God developing in increasing degrees towards selfhood. Animals are partial selves still included within the consciousness of God, but human spirits have reached selfhood and so have passed the point of detachment from the divine Mind into personality. Finite spirits are reduced copies of the divine Spirit, with faculties that faintly parallel his, tiny sparks of his being, so that they have fundamental kinship with God and are capable of sharing his thought and life. God's mind acts upon our minds so as to induce in us our sensations, which are developed and organized into our consciousness of the world, the human body being the special point of contact and means of intermediation between the divine Mind and human minds. God and finite spirits are bound up in one society or organism in which the divine personality and finite personalities are distinct and yet all are fused into a social cosmos. God is central and sovereign in this world-organism of spirits, holding all powers and destinies in his own hand and yet respecting the finite freedom and responsibility of finite spirits. His thought, sensibility, and will surge through this organism to win and mold all its finite

members into ethical harmony with himself and flood it with the fullness and splendor of his life; and such realization is that

> one far-off divine event,
> To which the whole creation moves.

CHAPTER X

APPLICATIONS OF IDEALISM

PHILOSOPHY runs straight to logical application and life. However abstract and subtle and remote from practical affairs its speculations and conclusions may be, yet it will irresistibly insinuate itself into all our thinking, and shape and color our views at every point. Its solution of the general problem of the world must enter into the solution of every particular problem. What we think of the First Cause will determine what we think of the minutest fact and most trivial event.

Equally ubiquitous and dominant is philosophy in life. A general view of the world that is held with any depth and earnestness of conviction will inevitably radiate from its central position and ramify all character and conduct. "As a man thinketh in his heart, so is he." "The most practical and important thing about a man," says Mr. G. K. Chesterton, "is still his view of the universe. We think that for a landlady, considering a lodger, it is important to know his income, but it is still more important to know his philosophy. We think that for a general about to fight an enemy, it is important to know the enemy's numbers, but it is still more to know the enemy's philosophy. We think the question is not whether the theory of the cosmos affects

matters, but whether, in the long run, anything else affects them." It will be in order, then, to look at some of the applications of idealism.

I. The Relation of Mind and Body

(1) The relation of mind and body is one of the critical problems and crucial tests of any system of philosophy, for here is the point where mind and matter directly impinge on each other and work together in our experience; and the solution of this relation goes far towards solving the general problem of mind and matter, either sundering them into two radically different entities, or reducing them to one substance. All metaphysical systems find a cardinal relation at this point; and we cannot escape the conclusion that this relation is some kind of interaction. That the mind acts on the body and the body on the mind is our constant experience, and we immediately know this fact as well as we know anything; yet the nature of this interaction is one of the most elusive and difficult problems of metaphysics.

Dualism has a solution of this problem that looks simple and sure: the two entities act directly on each other. Yet this system is burdened with grave embarrassment as it attempts to form some conception or theory of how a non-spatial mind and an extended body can mutually act on each other or have any relations whatsoever. That pure spirit can in any way lay hold of extended matter becomes more and more difficult to believe the more it is considered. Idealism is less embar-

rassed at this point because in its view both mind and body are spiritual entities, the body being a thing or thought of God specially adapted to the use of the mind. It follows, then, that the interaction of mind and body is a case of like acting on like, and this is more understandable to us than the case of two things so unlike as a non-spatial mind and an extended body acting on each other. According to idealism matter is not an obstruction in the way of mind, but only a form of its manifestation. Mind masters matter, melts down its "too, too solid flesh," so to speak, and casts it in its own mold. Matter is nothing apart from mind, any more than the shadow is something apart from its substance; and therefore matter clings to and obeys mind as the shadow follows the substance.

The case of mind and body acting on each other, then, is a case of mind acting on mind. We are still short of the full solution of the problem, for we do not know how mind acts on mind. We are immediately conscious of the mind as an active agent. It acts so as to produce its own thought, feelings, and volitions under its own initiative or under the stimulus of external influences, that is, under the impact upon it of other minds, especially the Universal Mind in which it lies ensphered. Mental causation acting between minds appears to be a kind of induction or contagion by which one mind induces its own states in another mind, or infuses them into another mind, or infects another mind with them. Mind is a wonderfully sensitive and absorbent substance,

being quick to respond to the presence of, and open to invasion from, another mind. The human mind is intimately and exquisitely bound up with a special adaptation of the World-Life or Universal Mind in which it is environed, and thus a constant state of interaction is taking place between them; and it is through this link of the body that action with all other minds is mediated.

(2) The mutual interaction of mind and body has always been known and utilized, but the fact is now being more thoroughly studied and better understood. This interaction takes place at every point in our life, but popular interest is most concerned with it in connection with health and disease. An extensive literature has already grown up and is rapidly increasing in this field. Dr. A. T. Schofield, an English medical authority, has published seven or eight volumes on the subject, of which the one entitled "The Force of Mind; or, The Mental Factor in Medicine," is one of the best for lay readers. It is packed with facts and quotations from medical authorities and gives a list of more than a hundred books and articles on the subject. These authorities maintain that the mind can cause almost every kind of disease, both functional and organic. Not only such functional diseases as neurasthenia, hysteria, and other nervous ailments, but infectious and organic diseases, such as fever, cholera, and cancer, may be due to the condition and action of the mind, or the mind may lower the vitality and resisting power of the body to the point where it falls a prey to disease.

On the other hand, the mind can cure disease, or raise the vitality of the body to the point where it can throw disease off. Dr. Schofield quotes the English medical authority, Dr. Daniel Hack Tuke, as saying that "mental therapeutics without hypnotism can cure toothache, sciatica, painful joints, rheumatism, gout, pleurodynia, colic, epilepsy, whooping cough, contracted limbs, paralyses, headaches, neuralgias, constipation, asthma, warts, scurvy, dropsy, intermittent fever, alcoholism, typhoid fever, and avert impending death." Other authorities, such as Drs. Weir Mitchell and Woods Hutchinson, regard such statements as exaggerations, but they all admit that the mind has a wide field and is a great power as a curative agent.

It is not asserted that the mind can cure disease by a sheer act of will, though it can often do much and sometimes work wonders in this way, but that the general state and action of the mind furnish the conditions in which disease may disappear and health be restored. Hypnotic suggestion, by which suggestions counteracting disease are planted in the subliminal mind, plays an important part in the theory and practice of some mental healers; and however it may be got into the mind, the suggestion of health is undoubtedly a powerful antidote to disease. Knowing how the mind under a great stroke of sorrow may blast and wither the body in a single night and how joy may revive and rejuvenate it, so that the body seems like wax in the flame of the mind, we are prepared for startling facts in this field. The "stigmata" of the

saints, in which the mind burnt right through the body, are supported by weighty evidence. No doubt excessive claims have been made for the curative power of the mind in disease, but that it is a vital factor in the matter is emphasized by medical authorities and is receiving increased attention in all quarters.

This power of the mind over the body is the root of all the various forms of faith cure and is the secret and stock in trade of numerous quacks. Dr. Schofield enumerates seven forms of mental healing as follows: Faith cures, mind cures, prayer cures, Christian Science cures, spiritualistic cures, mesmeric cures, and faith healer cures. The stories told of the manifold and marvelous cures effected by this general means are well known, and many are the healers and healing resorts that can show a remarkable collection of crutches and other paraphernalia that have been left behind by those that were healed. That many of these cures are genuine is an undoubted fact, admitted by medical authorities themselves. The fact that many of them are also spurious does not touch the reality of the genuine ones.

Unquestionably there is a large field here to be more fully investigated and worked, an immense latent force to be utilized. This is a matter that comes home to all of us in our personal living, and endeavors should be made to develop and spread the knowledge and practice of this art. Dr. Schofield contends that physicians have hitherto largely neglected the mental factor in disease and that of all men they should understand and

use it. Ministers and Christian workers generally should also be interested in this work. Bodily health is a part of that holiness or wholeness which they are trying to promote, and disease and sin are often deeply intertwined in their roots. Faith healing stands for a great fact which the church should know and use. The reason Christian Science has made such progress is that it has laid hold of this power and is putting it to practical use. It has popularized idealism. Yet it has only taken what belongs to the Christian church. It is not contended that ministers should presume to do the work of physicians or that mental healing can displace medical treatment; but it is being shown that ministers and Christian workers can do much in the way of stimulating the faith and cheering the hearts of the discouraged and the ill, so that their minds will operate upon their disordered nerves and organs as a restorative force. As a practical philosophy idealism may be a vast reservoir of latent power that may yet be released for the healing of humanity.

(3) It may be proper in this connection to say a word about Christian Science. Christian Science is a perverted form of idealism. Its idealism consists in affirming that the only reality is mind; its perversion consists in affirming that matter is a delusion of "mortal mind," a pure error of belief which is to be eradicated and destroyed as though it were a disease germ. This idea runs through Mrs. Eddy's book and all her writings and is asserted again and again. For instance,

she says in an article in *The Independent* of November 22, 1906: "God, Spirit, is infinite, matter and material sense are null, and there are no vertebrata, mollusca, or radiata." This is not the language of idealism, which accepts the testimony of the senses as to the existence of vertebrata, mollusca, and radiata, and then proceeds to inquire into the real nature of these things. Open "Science and Health" at almost any page and one finds this doctrine, that matter is a pure delusion to be rooted out of the mind. "Matter, or body, is but a false concept of mortal mind," we read on page 177. So disease is a nullity, a pure fiction of the imagination, and the way to cure it is simply to cease believing it. Not only disease, but bodily health, food, air, the great globe itself, and all material means and activities are equally entire delusions which should be cast out of our minds. Death itself is a delusion and would cease to occur in our experience if we only ceased to believe in it. Mrs. Eddy casts overboard anatomy, physiology, biology, astronomy, and all science, repudiates organized human knowledge, and turns the universe into a topsy-turvy of delusion. All this is not Berkeley's idealism or any form of idealism; it is not to be classed under any system of philosophy. Undoubtedly Mrs. Eddy has heard of Berkeley and got some inkling of his theory. As is well known and has been thoroughly proved, she derived her ideas and her practice from P. P. Quimby, an uneducated clock-maker who turned mind healer in Portland, Maine. Of Quimby, Rev. Lyman P. Powell,

in his book on Christian Science says: "He read much. The Bible was ever in his hand, and sometimes Berkeley." Quimby also taught that "Matter is error." Whether Mrs. Eddy ever read Berkeley or not we do not know, but some of his teaching has evidently trickled into her mind. But she has absorbed Berkeley's idealism in the perverted form that matter, instead of being a phenomenal experience of objective reality, is a pure delusion or error which should be rooted out of the mind. The basis of Christian Science is thus a spurious form of idealism. Idealism itself in all its historic forms, however, repudiates Christian Science as an illegitimate child and will acknowledge no responsibility for it.

2. Immortality

The immortality of the human soul has ever been one of the great hopes of the world, extending almost as wide and deep as the consciousness of the race, engaging the thought of the profoundest thinkers, poets, and prophets, producing some of our noblest literature, furnishing the main ground and goal of religion, building strong and fine character, and comforting the human heart in its deepest and darkest sorrows; and it has not withered under the light of modern knowledge, but is still a living problem of religion, science, philosophy, and popular interest. We are concerned with the problem as it stands in the light of idealism. What place and support, if any, does it find in this philosophy?

(1) Idealism gives a logical place and strong support

to the immortality of the soul in its basal principle that the human soul is a piece of reality in itself. It is one of the fundamental principles of all our idealistic reasoning that the soul is not a phenomenal experience of an objective reality, such as are the body and all material things, but is subjective reality which we immediately know. It has derived its being from God and become separated into its independent life and developed into individuality and personality. It is an intensely active being, a dynamic center and agent, with its own inherent energies of thought, feeling, and will.

To this dynamic agent the principle of the conservation of energy must now apply. This principle is one of the established doctrines of modern science. The manifold forms of energy we see manifested in the material world are all being constantly transformed into one another, but are never increased, diminished, or annihilated. Motion becomes heat, heat becomes electricity, electricity becomes chemical affinity, chemical affinity becomes light, and thus the Protean circuit runs its endless round. But at no point in this process does any infinitesimal atom of energy drop out of the circuit and vanish into nothingness. Experiment always finds the transformed energy exactly equal to the original, and any deficiency or excess in the resulting product would be unthinkable. The mind cannot find any point in the process where any minutest unit of energy could lapse. Thus the sum total of energy in the material universe remains a constant quantity.

This result of physical science must now be translated into metaphysical concepts. These physical energies are the phenomena impressed upon our minds by spiritual energies or mental operations in the Divine Mind. The meaning of this infinitely interlaced, exquisitely balanced system of physical energies is that the divine thoughts are a unified system in which change at one point is attended with a compensating or a corresponding change at other points. A divine thought can never perish and leave no trace, but abides in the eternal consciousness. God never dies or loses any part of his life.

The same principle now applies to the human soul. As it is a center and agent of mental activity, a finite copy of God's infinite Spirit, it can change the form and direction and conditions of its activities, but its activities themselves can never cease; its spiritual energy can never be spent and vanish. It is a bit of the immortal energy of God that can never die. There is no escape from this conclusion unless we annul the principle of of the conservation of energy, which is one of the cornerstones of all our science.

(2) But, it may be said, this law assures the perpetuity of the spiritual principle or energy of the soul, but not of its personality. The soul is immortal in its essence, but it melts back into the infinite Spirit whence it came, as raindrops fall back into the sea. Our answer to this powerful objection to personal immortality is that the human soul has developed into personality paralleling that

of the divine Spirit and has thereby attained a height of worth and a fixity of character that point to perpetuity. Personality is the highest product of the process of evolution. The long, slow, unwearied climb, purchased at every step by a great cost of sacrifice, from the ether to the atom, from the atom to the crystal, from the crystal to the cell, and from the cell to man, has been struggling towards personality as its goal. A consciousness full-rounded into intellect, sensibility, and will is an end in itself and the highest and final flower of the universe. Now when the means have fulfilled their purpose they drop away and leave the end as their blossom and fruit. The wheat stalk perishes, but the wheat is gathered into the garner. Were the end to perish with the means, the fruit with the seed, nothing would remain to justify both means and end, and the whole process of development would come to nothing and thereby be reduced to irrationality. The immense and age-long process of evolution through which the Divine Mind has created human souls is vindicated only as this process issues in permanent results. That personalities, the highest and costliest embodiments of worth, should be produced through the travail of divine birth only to be flung as rubbish to the void, puts to confusion all our ideals of reason and right.

"I do not know," says Martineau in an eloquent passage,[1] "that there is anything in nature (unless indeed it be the reputed blotting-out of suns in the stellar

[1] "Study of Religion," Vol. II, page 356.

heavens) which can be compared in wastefulness with the extinction of great minds: their gathered resources, their matured skill, their luminous insight, their unfailing tact, are not like instincts that can be handed down; they are absolutely personal and inalienable; grand conditions of future power, unavailable for the race, and perfect for an ulterior growth of the individual. If that growth is not to be, the most brilliant genius bursts and vanishes as a firework in the night. A mind of balanced and finished faculties is a production at once of infinite delicacy and of most enduring constitution; lodged in a fast perishing organism, it is like a perfect set of astronomical instruments, misplaced in an observatory shaken by earthquakes or caving with decay. The lenses are true, the mirrors without a speck, the movements smooth, the micrometer exact; what shall the Master do but save the precious system, refined with so much care, and build for it a new house that shall be founded on a rock?"

The permanence of personality is further confirmed by its persistence through all earthly vicissitudes. While it develops from germinal unconsciousness to full-blown personality, yet after emerging into selfhood it retains its central core of consciousness, which does not change with the years but remains as the identical self. Its outward circumstances are in a state of ceaseless flux and at times pass through tremendous shocks and upheavals; its very body flows away from it in a steady stream and is constantly replaced with new tissues; its subjective experience is in a state of incessant change

and development, and at intervals encounters catastrophic crises and is swept by terrible storms; and yet none of these rolls it from its base, but its central self persists as the same personality. If it can survive such constant and deep changes and even repeatedly put off the entire body and clothe itself in a new garment of the flesh, will it not survive the still greater shock of death and weave around itself a form of body adapted to its new condition?

To this conclusion have come some of our ablest scientific thinkers, the class of men who find it most difficult to accept such views. "What we are claiming," says Sir Oliver Lodge, in his "Science and Immortality," "is no less than this — that, whereas it is certain that the present body cannot long exist without the soul, it is quite possible and indeed necessary for the soul to exist without the present body. We base this claim on the soul's manifest transcendence, on its genuine reality, and on the general law of the persistence of real existence. . . . Immortality is the persistence of the essential and the real; it applies to things which the universe has gained — things which, once acquired, cannot be let go." The view of John Fiske is also of special interest and worth: "Now the more thoroughly we comprehend that process of evolution by which things have come to be what they are, the more we are likely to feel that to deny the everlasting spiritual element in Man is to rob the whole process of its meaning. It goes far toward putting us to permanent intellectual confusion, and I do

not see that any one has as yet alleged, or is ever likely to allege, a sufficient reason for our accepting so dire an alternative. . . . The greatest philosopher of modern times, the master and teacher of all who shall study the processes of evolution for many a day to come, holds that the conscious soul is not the product of a collocation of material particles, but is in the deepest sense a divine effluence. According to Mr. Spencer, the divine energy which is manifested throughout the knowable universe is the same energy that wells up in us as consciousness. Speaking for myself, I can see no insuperable difficulty in the notion that at some period in the evolution of Humanity this divine spark may have acquired sufficient concentration and steadiness to survive the wreck of material forms and endure forever. Such a crowning wonder seems to me no more than the fit climax to a creative work that has been ineffably beautiful and marvelous in all its myriad stages."[1]

(3) The immortality of the soul is further attested by its needs and desires and instincts that reach out beyond this life. The whole soul is a bundle of cravings, physical, mental, affectional, moral, and spiritual. Some of these, such as the procreative passions, do fulfill their purpose, reach their full satisfaction, and are sloughed off, evolution leaving them behind. But others of them reach no such limit and are like parabolic curves that never become a closed circuit, but ever sweep a wider area.

[1] "The Destiny of Man," pages 115, 117.

Our mental faculties are of this infinite nature. They unfold their tentacles and throw them wider and farther, laying hold of the world with an ever ampler grasp, feeling deeper into all its crevices, penetrating to its core and reaching out to the stars, but never approaching a limit to their inquiries and processes, or to their capacities of growth, and never attaining full and final satisfaction. The infinitude of truth is an assurance that the human intellect will never lose its occupation through finding no more worlds to conquer. It has eternity stamped upon its constitution as something that can never finish its work and be cast aside as a means that has reached its end.

The affectional nature has in it the same seeds of immortality, as it never outgrows its power of loving and its craving for social satisfaction, and clings to its fond object more firmly as it approaches the verge of earthly life. The moral nature has the same parabolic properties as it starts problems and experiences that never reach their final answer and goal in this life, but run ever forward and throw themselves unsolved and unsatisfied into another world. So strong is the demand of conscience, or the "categorical imperative," for a future life as the necessary fulfillment of its needs that Immanuel Kant rested on it as a sufficient foundation for belief in immortality. The human will does not become a spent force with time, but persists in its ambitions and passions and often puts forth its intensest efforts and energy in the last hours of life.

The body passes the limit of its growth and efficiency and shrinks to the point of its dissolution, but the soul in its intellect, sensibility, and will is bounded by no such limit and has the capacity of endless development and enlargement.

Still further, the soul has a positive yearning for an endless life, an instinct of immortality. All its faculties look forward and are expectant of some better thing to come. The human spirit shrinks from extinction and has a mighty passion for life. It stands on the shore of time, peering over the ocean of eternity that it may discern "the green mountain top of a far, new world." It regards all its work as incomplete and only a preparation for a larger work; all its growth as only the seed of a fuller growth and finer fruitage. This life, rich and glorious as it may be, it holds as a poor and pitiful fragment without more life. Man buries his dead and refuses to believe they have vanished into nothingness, but hopes to meet them again. He enters the dark shadow of death, believing he will emerge into the eternal morning.

This passionate belief in immortality is world-wide and age-long. It is not peculiar to any race or time or condition, but is one of the most universal and persistent facts in the world. Science has not withered it, but rather it grows with all our growth in civilization and culture. Agnosticism cannot kill it. In 1883, when near sixty years of age, Thomas H. Huxley wrote: "It is a curious thing that I find my dislike to the thought

of extinction increasing as I get older and nearer the goal. It flashes across me at all sorts of times with a sort of horror that in 1900 I shall probably know no more than I did in 1800. I had sooner be in hell."

Religion has rooted itself in this belief and grown out of its soil into great systems of faith and life. Art glorifies it. Philosophers, poets, and prophets have voiced it in imperishable words.

My own dim life should teach me this,
That life shall live forevermore,
Else earth is darkness at the core,
And dust and ashes all that is.

Here sits he shaping wings to fly:
His heart forebodes a mystery:
He names the name Eternity.

'Tis life, whereof our nerves are scant,
Oh life, not death, for which we pant;
More life, and fuller, that we want.

— TENNYSON.

Though inland far we be,
Our souls have sight of that immortal sea
Which brought us hither,
Can in a moment travel thither,
And see the Children sport upon the shore,
And hear the mighty waters rolling evermore.

— WORDSWORTH.

If we are to trust the witness of the soul in its own constitution, we must believe that it is not to perish with the body, but is endowed with the power of endless life.

If it is an honest piece of an honest world, its cravings and instincts are not false hopes, but true prophecies.

(4) The same conclusion is involved in the Fatherhood of God. We have seen that idealism reaches the view that human souls are the offspring of the Universal Soul and bear its image and are knit up with it in a social organism. Men are thus the children of God, and he sustains to them the paternal relation, and they to him the filial relation. This mutual relation involves mutual obligations of fellowship and faithfulness. In producing human beings God has passed the point of producing mere things or even partial selves and has brought forth children that bear his image and are capable of sharing his life and love. Such children, having been begotten, are thenceforth essential elements in the divine life and necessary to its completeness and satisfaction. "The Father seeketh such to worship him." God having brought forth his children can never be the same without them. They are not mere means to higher ends, but are ends in themselves with inherent and essential life and worth. They are objects of the eternal Father's love and have their home in his heart. Such a relation is a timeless one and reaches no temporal limit, but runs on, growing richer and sweeter forever. For his own sake the Father will not cast his children to the void.

This argument is greatly strengthened by the fact that God has implanted the need and expectation of immortality in the human heart. No matter by what

intermediary processes the soul may have acquired this instinct and craving, it has evolved such a constitution in God's world and under his providence, and therefore he is responsible for it. Such an implanted constitution puts upon its Creator the obligation to be faithful to it and fulfill this deep need and intense expectation. To suppose that he is begetting children and endowing them with these capacities and hopes only to disappoint them is to suppose that he is making cruel sport of his children and is a fateful monster more dreadful than we could believe any human father could be. "Who can believe," says Martineau, "that the everlasting Mind fulfills its end by disappointing every other? . . . Is the eternal design of Perfection to be gained by the frustrated aspirations of countless ephemeral generations?" The universal human heart thinks better of God, and trusts his promise as implanted in its own constitution.

> Thou wilt not leave us in the dust:
> Thou madest man, he knows not why,
> He thinks he was not made to die;
> And thou hast made him: thou art just.

(5) A further confirmation of this hope is the incompleteness of this world. From many points of view it bears the marks of a work begun but not finished. It is a workshop in which the products are only roughly shaped, a school in which education is carried only through its primary grades, a home in which the children are only partially reared. There is a call for a finishing factory, a higher school, and a final home. Especially

is the world incomplete and disjointed in its social and moral aspects. Its frightful inequalities and injustices, vice and crime, call for adjustment and judgment. If the whole fabric of our moral life is not an illusion and delusion, but the reality and tragedy we believe it to be, it must issue in a final assize in which retribution and rewards are justly distributed. "If Death gives final discharge," says Martineau, "alike to the sinner and the saint, we are warranted in saying that Conscience has told more lies than it has ever called to their account."

Thus man appears to be only a germ and bud in an incomplete world, and his whole constitution and condition prophesy a future world of richer soil and more genial clime in which he will unfold his faculties into the full-blown blossoms of perfected humanity. He only "stands half-built against the sky," a being who "partly is and wholly hopes to be." If we must face this world as a finality, it turns to irrationality, and it can be understood and justified only as we believe that

> The best is yet to be,
> The last of life, for which the first was made:
> Our times are in his hand
> Who saith, "A whole I planned,
> Youth shows but half; trust God: see all, nor be afraid!"

(6) The most powerful objection to human immortality is the dependence of the soul on the body and its apparent dissolution in death. This dependence is close and mutually sympathetic at every point and persists through life. The soul and body develop together and keep pace

with each other at every step. Every mental state or action is accompanied with a corresponding physical action and every physical change in the body induces a corresponding change in the mind. The soul is delicately sensitive to all changes in the body and goes up or down with its condition. As the body fails in old age, the soul declines with it and sometimes becomes only a vestige or reminiscence of its former self. And in death the same crisis that stills the heart also seems to extinguish consciousness and obliterate the soul forever. In short, we know the soul only in connection with the body, and the two seem to come into existence and to perish together.

But there are competent answers to these strong objections. They are based upon our ignorance of a disembodied state, and we cannot rest an argument upon this ignorance, for our experience is limited and there must be more things in heaven and earth than are known in our science or dreamt of in our philosophy. It is admitted in our idealistic construction of the world that the soul is dependent on the body, which is the point of contact and means of communication between the soul and God and, through God, with the world and other souls. But there are strong grounds for thinking it is only a means and one from which the soul can disengage itself. The body bears all the marks of being the instrument or tool of the soul. The soul sharply distinguishes itself from the body, handles it, resists it, masters and molds it to its own use. At times the soul overpowers the

body and strikes through its flesh and bones with crushing force. As life advances, the body loses its strength and suppleness, its responsiveness to the demands of the soul, and becomes stiff and refractory, inefficient and impotent. It degenerates into a worn-out machine, a blunted and broken tool. This crippled condition of the body is an adequate explanation of impaired mental powers in old age. The mind itself does not appear to grow old, and often retains its faculties keen and strong to the last moment of advanced life. The soul still has its powers, but the bodily mechanism refuses to respond to its bidding. The telegraph operator still retains his skill, but his instrument has stopped working. Why the brain and whole body should wear out is for the physiologist to say, but the fact does not cancel the reasons for believing that the soul survives it. Besides, as we have seen, the soul is continually shedding the body through life: may it not finally disengage itself from it in death?

> So is myself withdrawn into my depths,
> The soul retreated from the perished brain,
> Whence it was wont to feel and use the world
> Through these dull members, done with long ago,
> Yet I myself remain; I feel myself:
> And there is nothing lost. Let be, awhile!
>
> — BROWNING.

The soul is less and less dependent on the body through life. It starts in utter bondage to the body, literally sunk in the flesh. But as it develops it outstrips the body, and the soul rises above the sense, and the

spirit above the flesh. More and more, as life advances, the soul becomes self-dependent and dominant, loosed from servitude to the body and endowed with internal resources. In some instances, when the body has shrunk and withered almost to the vanishing point, the soul flames out in the greatest intensity and power. It looks as though the soul were gradually outgrowing the body and letting go of this crutch, while it is developing wings on which to soar into a wider, freer life. The present body is only a temporary hut for the soul while its proper palace is being built. Paul had some such idea of the body. He viewed it as an "earthly tabernacle" and contrasted it with "an house not made with hands, eternal in the heavens." "It is sown in corruption; it is raised in incorruption: it is sown in dishonor; it is raised in glory: it is sown in weakness; it is raised in power: it is sown a natural body; it is raised a spiritual body." The soul may thus cast away "this muddy vesture of decay," because it has become an outworn garment, in order that it may weave around itself a closer-fitting, more supple and serviceable, and more splendid robe in the eternal world.

> It is not death to fling
> Aside this sinful dust,
> And rise, on strong exulting wing,
> To live among the just.

The idealistic interpretation of death is that this event is a crisis in the life of the soul in which its relation to the universal life of God undergoes a change or passes a

critical point. The body, as we have seen, is the tie and means of communication between God and the soul in this world or stage of existence. Death unlooses this tie, casting the body back into the general stream of the world or life of God and releasing the soul into some other mode of union with God at present unknown to us. The dead body remains to us as the symbol of this changed relation, but the further state of the soul is hidden from us. That it enters upon some other mode of existence in which it has a larger and richer share in the beatific life of God is our belief, based upon all the reasons for our hope of immortality.

(7) The practical value of this hope is worthy of being classed among the reasons for it. It must be admitted that the belief in immortality has been an immense fact and force in human character and conduct in all ages. It is one of the deepest and strongest and most fruitful roots of religion. It reënforces many of the motives of this world that shape the thoughts and actions of men, and raises new and tremendous ones of its own. It crowns this world with worth and dignity and destiny that raise it to a higher power and invest it with eternal significance. It lightens up the sorrow and gloom of this world with the light of a better world. If this hope were universally destroyed, the effect on human character in private and social life would be disastrous beyond conception. It would be like severing the cords of gravitation that bind the planet to the sun : the world would reel and stagger off into the darkness of despair and degradation. The

shock of such loss of faith might not be immediately felt, and there would be sufficient momentum of hereditary morality and habit to hold the world in its course for a time. But let the world be unloosed from ideals of permanent worth and power and there would be no sufficient attraction to told it up to high resolve and strenuous endeavor. If men believe they are beasts, they will presently live as beasts. The flesh would overmaster the spirit, and human conduct would slip and slide toward sensuality. The human soul could not permanently bear " the heavy and the weary weight of all this unintelligible world," and would faint and fall under the burden. A hope the presence of which is so essential to the health and happiness, the rationality and permanence, of this world, and the loss of which would so undermine it and let it crash into ruin, has upon it in this fact a deep stamp of reality. It is more rational to believe it true than false.

(8) What effect does the theory of evolution have upon the hope of immortality? The popular impression appears to be that its effect is unfavorable. The theory seems to suggest that all things come by a slow, irresistible process of development, and bloom and ripen on the vast mystic tree of life, and then inevitably drop and perish in the general stream of nature; and the depressing thought is borne in upon us, at times with powerful force, that the human soul is only the topmost and finest blossom on the tree and falls and perishes as any common leaf. But we have already seen that the doctrine of

evolution is only a descriptive account of the successions of the phenomenal world, and leaves untouched the causal power that underlies them; and we have further seen that this causal power is the intelligence and will of God, who is energizing in the world and producing all its activities and its whole development in the order of his plan and purpose. This resolves evolution into a process of the spiritual world in which souls have their home, and thus relieves it of its depressing implications and sets it in a friendly attitude towards this hope.

But there is still further confirmation in the theory. Evolution throughout its whole course is a process of producing ends which then enter as means upon a higher stage of development. The atom appears to be the product of one incomprehensibly long period of evolution, but it was no sooner produced than it was taken up into higher combinations in molecules and chemical compounds. This inorganic matter was then transmuted into organized forms of life, and throughout this long climb we see the same principle at every stage and step. The mineral is food for the vegetable, the vegetable for the animal, and the animal for man. The apple, having grown upon the tree, is detached from its stem and passes into higher life. The end of each stage of evolution marks a critical point where the product is cut off from the process and raised to a higher level. The direction in which this principle points is obvious: it points to a higher life for man. His soul ripens on the stem of the body and then is detached and the body perishes. But

the whole analogy of evolution requires that this most precious product should not be lost, but should pass to a higher stage and be devoted to a more exalted use, or be transmuted into finer, richer life. Shall the atom and crystal and vegetable be on their way to a higher destiny at the lower end of the scale of evolution, and yet the human soul at the top fail of this hope and fall into nothingness? Evolution itself has written all over it the promise and potency of some better thing, and its long and costly process is adequately completed and justified only when the human soul, its topmost blossom and finest fruit, passes into a higher world and an immortal life.

> But in completed man begins anew
> A tendency to God. Prognostics told
> Man's near approach; so in man's self arise
> August anticipations, symbols, types
> Of a dim splendor ever on before
> In that eternal circle life pursues. — *Paracelsus.*

(9) A word may be said on the idealistic conception of the nature of immortality, or of the life of the soul after death. On this point, of course, we are left to speculation and are not warranted in going far. It appears that the present stage of existence is a womb in which the soul is being developed into personality and character and out of which it is born into a freer, richer life in fellowship with the Father. Fechner's conception of this final state of the soul has commended itself to many idealistic thinkers. The mind receives and stores up

many various sense impressions of the same object, such as visual images, auditory sensations, and tactual impressions. These remain distinct in the mind, and yet they all blend into unity in a mental object or construct. In a similar way, Fechner supposes, human souls pass into the Universal Soul and there abide, each retaining its own personality and yet all blending into the divine life. God is the Infinite Spirit who gathers into himself the spirits of his children and holds them in his eternal fellowship, where they share his life and yet retain their personal existence. Human souls are thus falling back into the bosom of the Father, where they dwell with him forever.

(10) The whole course of this argument applies to all human souls as beings of essential worth; but it impresses us most vividly in the case of extraordinary souls. Greatness brings out inner principles in accumulated power. We are scarcely aware of gravitation in a mote floating in the air, or in a grain of sand, but it becomes tremendous in the pressure of a mountain on its base, or in the pull of the moon or the sun. Life seems of small worth in a microbe, but it mounts up into immense value in man. Human souls also differ in rank and value, and a great soul may overtop a crowd of small ones as a mountain overshadows its foothills. All the arguments that converge upon the hope of immortality grow more weighty and impressive as a soul looms upon us in greater magnitude and nobility. We may not have the insight to see that the meanest slave

or lowest savage has in him a germ of immortal worth; but when mighty men stride across the stage of the world and achieve works of supreme genius, or put forth deeds that reshape the ages, or win crowns of sublime heroism, or rise to summits of lofty character, or wear the blood-red robes of sacrificial service and suffering, we have a powerful conviction that these souls are of immeasureable worth and were not born to die. Socrates and Plato, Milton and Shakespeare, Cromwell and Lincoln, are too great and precious, we feel, to be extinguished as meteors in the night, and we are satisfied only as we are assured that they are set as stars in the firmament of eternity. These arguments for immortality support their claims to endless life, but they also support these arguments.

This principle rises to its supremest expression and power in the person of Christ. His resurrection is a historical and not a metaphysical question; but the question raised by his life and character does come within the philosopher's field. Christ wrought a work and achieved greatness of character that are supreme and unapproachable among men. As he now stands before us, set in the vast frame of nineteen centuries, he is a lofty and sublime Figure and shines the Master of the world. He has breathed his Spirit through the ages and reshaped all their institutions; he laid his spell upon the centuries, and they have acknowledged his sway and arranged themselves around him as their attractive center and organizing power. Christendom

to-day, however partially and imperfectly as yet, is stamped with his image superscription. It dates its calendar from his birth and weighs all its institutions, laws, literature, and life in his balances. His sayings are the seeds of our modern world, and more and more will they spread and bloom on every shore.

The character of Christ is the one flawless diamond of human history. All moral and spiritual elements are refined and compacted in him in perfection. Truth and trust, purity and patience and peace, righteousness and reverence, justice and generosity, meekness and manliness, gentleness and might, goodness and love, sympathy and service and sacrifice combine in him in faultless proportion and harmony, and shine out in purest splendor. He walked the earth the Friend of all classes and conditions of men and drew to himself the rich and the poor, the learned and the illiterate, the noble and the degraded, the sinful and suffering and sorrowing. He bore the mysterious burden of the sin of the world, and his love for men paid the last full measure of its devotion on the Cross. That Cross is the center and summit of earth's tragedy, and is at once the deepest wound inflicted by human sin and the means of its cure. The character of Christ is incomparably the most precious possession of the human race.

All our arguments for immortality converge upon him as in a focus and there blaze and burn in their greatest intensity and power. These arguments prove his immortality, but much more does he prove these

arguments. If that great Soul and white Spirit vanished in the night of death and left only a handful of dust under the Syrian stars, then we feel that we live in an irrational world which devours its noblest children and betrays all its promises. The human mind and heart will ever refuse to accept such a wreck of reason and of hope. Christ brought life and immortality to light, and in his light this glorious hope finds its highest confirmation and certitude.

Apart from my flesh shall I see God. — Job 19: 26.

3. The Problem of Evil

Let us now enter the dark region of evil, carrying the torch of idealism, and see what light of explanation or alleviation it may cast upon the gloom.

Several preliminary remarks may be made. The first is that as the world is not all good, so it is not all evil, but is a mixed world in which lights and shadows are intermingled. We may not be able to estimate the relative proportions of the two, but we can hardly escape the conviction that on the whole the good outweighs the evil. The world of life appears to be a general scene of satisfying activity and happiness, and suffering and sorrow are only spots on its brightness or minor chords or occasional discords in its music. It is true that at times and points the evil does seem to overshadow the good and even to blot it out, but these experiences are exceptional. Evil is apt to impress us more vividly than good; it advertises itself more loudly and gets

more consideration. A spot on the sun attracts general attention, while its steady shining occasions no remark. Exceptions are usually more conspicuous than the rule, and for the very reason that they are exceptions and not the rule. Good is the rule in this world, and evil the exception. At any rate, every sane mind must admit that there is a vast amount of good in the world. This good is so much on the credit side of the account and helps to reduce the debit side of evil. Our problem is not to account for an evil world, but for a world that contains much good mixed with some evil.

Our second preliminary remark is the obvious one that the problem of evil far outruns our power to solve it. We may be inclined to think that the world might have been constructed on some better plan which would have avoided all evils and resulted in a world of pure harmony and joy; and perhaps we may even be tempted to imagine that we could have outlined such a world ourselves.

> Ah Love! could you and I with Him conspire
> To grasp this sorry Scheme of Things entire,
> Would not we shatter it to bits — and then
> Re-mold it nearer to the Heart's desire?

Yet this must be a presumptuous thought, and we cannot suppose that our finite faculties have such breadth and depth as would enable them "to grasp this sorry scheme of things entire" so as either to condemn it or to suggest a better plan and pattern. A fly on the cab of a rushing locomotive has little comprehension of the

ponderous machine and infinitely less of the revolving earth and flying stars. Even so are we caught in the mighty mechanism and meshes of a vast organism that far outruns our power of comprehension. Nevertheless, we are in the world that we may understand and master it as far as we can; and however terrible the tangle and starless the night of evil, we dare not give the problem up or pass it by in despair, but are impelled by our deepest instincts to strain our vision and strength to the utmost in the endeavor to find its clew and pluck the heart out of its mystery. And we do reach points of view and moods of mind and heart that help us to see the world in a somewhat more rational and tolerable light.

A third preliminary remark, growing out of the last one, relates to the definition of evil. It is usually best in beginning a discussion to fix accurately the meaning of its critical terms, and thus avoid illogical arguments and confusion of thought. But some ideas are too big or too vague to admit of sharp definition. Evil is pre-eminently such a word. We know or feel that we know what it means in a large dim way, but it would trouble us to draw around it very definite boundaries. In general it stands for whatever is harmful to us; it is anything that conflicts with right and good. It is thus the opposite of good, the shadow that follows the light. But the value of this general idea is impaired by the fact that we do not always know what is good, even for ourselves. Evil also in our experience assumes manifold forms, and these serve to confuse us. What ex-

plains one branch or aspect of it will not explain another, and this increases the difficulty of finding the common root. There is thus a large subjective element in our conceptions of evil that varies with our condition, feelings, and ideals. To be able to define evil accurately and exhaustively would be equivalent to understanding and explaining it. We can therefore only take concrete instances of what we regard as evil, and leave its definition bordered and blurred with the mystery in which the whole problem is involved.

The field of evil falls asunder into two main divisions: the evil in nature, and the evil in the human world; and we shall take these in their order.

I. According to idealism, nature is wholly included in the life of God as his creation and is the expression and play of his thought and feeling and will, his eternal employment and enjoyment. This fact would seem to rule out of it the possibility of any evil. It should present to us a scene of pure rationality and goodness, of light and love. Yet it appears to be clouded with shadows and at points with deep darkness, and men have always looked at it with bewildered, pained eyes and fearful hearts.

(1) One aspect of this apparent evil is the seeming waste in nature. Its deserts, mountain solitudes, oceans, and ice-bound regions seem out of all proportion to its habitable areas; and the world as a whole seems a vast globe of rock with the thinnest rind of life; and even in the field of life there appears to be an enormous prodi-

gality of wonderful organisms with no worthy end in view.

"Take, for example," says a writer in a communication in the New York *Sun*, of October 22, 1908, who says he has "simply been hurled into the ranks of materialism" by such facts, "that wonderful order of insects known as the Ephemeræ. Nature in her prodigal way has lavished upon these children of the air, these brief guests of the sun, a physical equipment that is a positive marvel of beauty and delicacy. Their wings, especially when observed under a powerful microscope, reveal a precision of mechanism and a splendor of coloring that are simply startling. Surely, one would surmise, there is here some substantial aim in view for all this effort, some really durable benefit to be derived from such a wealth of natural endowment. Alas for such a theory! These insects are produced by the millions and millions, simply to live for a single day. Born at sunrise, they reach maturity at noon, and die of old age at sunset.

"Or again, turning to another field of creative energy, there is found in the obscure depths of certain tropical forests in South America a wonderfully rare and beautiful orchid. It is perhaps the most exquisite of the entire family, and its marvelous harmonies impel even the rude and ignorant natives to regard it with an attitude of mingled awe and reverence. During the early days of its development it presents but little promise of its future glory, but finally the moment of perfect fruition arrives and it reaches the golden culmination of its career. For

exactly two hours this idyllic creation reigns supreme; for exactly two hours its ravishing beauty holds the casual spectator spellbound; and then the flower begins to droop, its tints begin to fade, its enchanting purity begins to soil, and decay, swift and silent, effaces the fairy vision."

It is a sufficient answer to this objection to say that the whole system of nature is a delicately balanced organism in which every part contributes something to every other part, however remote it may be or unrelated it may seem. The ocean ministers to the mountain, the mountain to the plain, and no flower blushes unseen but sheds some fragrance into our life. But the whole objection fades away when set in the light of idealism. God is immanent in his world, fashioning insect and flower and enjoying the work of his hands. The materialist first empties the world of God and then bases an argument against God on the fact that there is nobody in it to enjoy it. But let God be in his world, or let the world be in God, and all these things become beautiful in their time. "I sometimes think," says John Burroughs, "that the earth and the worlds are a kind of nervous ganglia in an organization of which we can form no conception, or less than that. If one of the globules of blood that circulate in our veins was magnified a million times, we might see a globe teeming with life and power. Such is this earth of ours, coursing in the veins of the Infinite."[1] God is omnipresently conscious of all these

[1] "Birds and Poets," p. 56.

crowded worlds, and no desert or ocean depth or hidden flower or tiniest insect or infinitestimal microbe is useless or uninteresting to him.

(2) We encounter a more serious appearance of evil in the strife that pervades nature, sowing it with passion and turning it into a universal battlefield or vast slaughter-house. Animals generally are armed with weapons of offense and defense. Hugh Miller, in his "Testimony of the Rocks," referring to the early geological ages, speaks of the "exhibition of tooth, and spine, and sting, — of weapons constructed alike to cut and pierce, — to unite two of the most indispensable requisites of the modern armorer, — a keen edge to a stiff back; nay, stranger still, the examples furnished in this primeval time of weapons formed not only to kill but also to torture." The fact of the enormously prolific reproduction of animals by which vastly more are born than can find food and survive precipitates a terrible "struggle for existence" in which nature is "red in tooth and claw with ravine." Thus the law of nature seems to be, "Kill! kill!" and it appears everywhere to write its purpose and spirit in characters of blood. This law of struggle and death goes down through the vegetable world; and it appears to sink deep into the rocky rind and molten core of the earth, where it manifests itself in the cosmic agonies of earthquake and volcano.

We may gaze at this sanguinary aspect of nature and multiply its frightful features until the brain reels and the heart grows sick and we feel like flying from nature

as a murderous mother. "If one meditated," says Victor Hugo, "on the sinister shapes patiently lying in ambush in the abyss, not a bird would dare to brood, not an egg would dare to hatch, not a flower would dare to open, not a breast would dare to give suck, not a heart would dare to love, not a spirit would dare to take flight." How can we look at these things and still believe in the beneficent purpose and essential goodness of God? Several considerations may be presented in the way of explanation.

(*a*) The amount of real suffering in nature is vastly less than this picture would lead us to suppose. Animals suffer much less pain with their low nervous organization than we attribute to them out of our own experience; and they have no foresight of and little fear in connection with death. We have already adverted to this point (pp. 157–158) and need only recall the words of Mr. Darwin: "When we reflect on this struggle, we may console ourselves with the full belief that the war of nature is not incessant, that no fear is felt, that death is generally prompt, and that the vigorous, the healthy, and the happy survive and multiply."

(*b*) The things in nature that we view with physical and æsthetic and even moral aversion and horror may be seen in a very different light by the divine consciousness. We appreciate and enjoy nature at the points where we have special interest in it by reason of our pursuits, studies, or temperaments, and other aspects of it may excite our dislike. But the wider is one's intel-

lectual and æsthetic range, the broader and deeper is his appreciation of nature and the fewer are the points in it that arouse his fear or other antipathy. What excites one man's deep aversion may thus be another man's intense delight. Two instances of this falling under the author's personal notice may be adduced. We were once present at a literary club when the unpleasant and horrible things in nature came into the discussion, and one of the members, who was a literary man and an author of some distinction, expressed his disgust and horror at maggots. But at once another member, who was a biologist of some note, spoke up in dissent from any such view and declared that there was nothing more interesting to him than those same repulsive maggots, maintaining that they are creatures of wonderful structure and most fascinating habits. On another occasion we were present in an operating room when an eminent surgeon was removing a dreadful cancer. Holding out to us a handful of the cancerous growth and squeezing it with evident glee through his fingers, he pronounced it "beautiful stuff." It was not beautiful to the poor woman who was suffering from the frightful thing, but to him as a scientist and surgeon who was a specialist in the study and removal of cancers and was in the act of saving the woman's life, it was of deep interest. "In our imagination," says a popular writer on cancer, "we associate cancer with everything disgusting and horrible; looked at through the microscope, however, it is really very beautiful."[1]

[1] Burton J. Hendrick in *McClure's Magazine* for July, 1909.

There is no form or life or aspect of nature, however repellent or frightful, that is not interesting to somebody. The fearsome shapes which Victor Hugo pictured as lying in ambush in the sea and which he thought, if they could be seen, would paralyze all hearts, so far from frightening the Psalmist, only moved him to exclaim, "Praise the Lord, ye dragons and all deeps." The awful mountain heights and cañon depths that overwhelm the uninitiated with horror, rouse the expert mountain climber to the highest pitch of excitement and enjoyment. The earthquake that crushes the rocky ribs of the earth, spilling the sea on the land, shaking down cities, destroying thousands of human lives and rolling a wave of horror around the world, is viewed by the geologist as an interesting incident in the development of a cooling and shrinking globe, or as another stroke of the hammer upon a planet that is still in the shop. By thus extending the width of our understanding and interest, we bring more and more of nature within the range of our appreciation and approval.

This process carried to its limit gives us the universal range and interest of the Divine Mind. Nature is the work and play of God. The heaved-up mountains and far-flung stars are his work, suggesting stress and strain. Many things in nature, such as the odd conceits and fantastic forms of the animal and vegetable worlds, hint at the play of his humor. The whole face of nature is carved into features and seamed with lines that suggest an infinitely rich emotional life. God is

enjoying himself and is often at play in nature. It is true that some of this play looks rough and ruthless to us, but do we not like strenuous play? God has other interests than those we know as "moral," even as we have ourselves. He is not only the infinite Lawgiver and Judge, but he is also the infinite Thinker and infinite Artist. Nature is a field in which many of these interests are being exercised, and therefore it contains much that is dark to us but light to him. We cannot put ourselves in his place with all his infinite faculties, and so we cannot see nature as he sees it; but we may well believe that with his universal insight and appreciation he sees everything "beautiful in its time."

(*c*) But we have not yet touched, it may be said, the deepest nerve in the moral problem of nature, the strife that saturates it with hatred and blood. At this point we must recall the fact that animals are but partial selves and fall wholly within the divine life. They do not rise to the moral plane, and are not to be judged by moral standards. There is no moral hatred in nature. Yet even after we have granted this, it may still be difficult for us to conceive how such activities and conflicts and sufferings can be going on within the divine life, but one or two hints at explanation may be barely suggested.

The world of nature is the developing life of God, and is ever rising towards separate personalities, which it reaches in man and we know not in what other still higher beings. But it is a universal law of life that it develops only under

the stress of opposition and conflict. It is the resultant of opposing conditions and forces. Body and brain are the outgrowth of infinite battles. The heart gathers its honey from countless nettled flowers. There appears to be no escaping this law, even in those forms of life that are still included within the divine life. All nature, exhibiting the infinite wealth and play of the life of God, shows

> That life is not as idle ore,
> But iron dug from central gloom,
> And heated hot with burning fears,
> And dipt in baths of hissing tears,
> And batter'd with the shocks of doom
> To shape and use.

Does this mean that this stress enters into the life of God as a personal experience? The suggestion is highly speculative, but the tendency is strong to think that it may contain some deep and mysterious truth. As our own character is the result of temptation overcome and conflicting elements held in check and harmony, so it would seem that there must be some state corresponding to this finite condition in the infinite Mind. The fact that "the whole creation groaneth and travaileth in pain" seems to point to a laboring God, or to a God who is holding under his control struggling elements that would otherwise escape into lawlessness. The Persian Dualism drove this cleft into ultimate reality so deep as to sunder it into two eternal Principles, Light and Darkness — an impossible conclusion from the point of view of philosophy. But there may be a hint of truth in the concep-

tion. God has elements and activities in his being that must be held in subordination, a struggle that may be pictured in the strife in nature; and the resulting harmony is his perfect and blessed character. But this perfection depends upon stress of will and the joy of victory. This is not to attribute any dark spot or core of evil to God, but only to allow him such experiences as are the eternal conditions and crowns of righteousness. It is the exercise of his self-control and the self-affirmation of his holiness.

(*d*) It must also be considered whether nature is a closed system, or whether it is part of a larger scheme which has shaped it. Now the fact is that man grows up out of nature and transcends it, and his presence in it may therefore throw some light on its structure. Nature is his school of development and education and the field of his struggle and attainment. Has not the school, then, been adapted to the scholar, and the field to the worker? Has not nature been sown with difficulty and danger and strife for the development of human personalities? We may even go farther and hold that nature has had incorporated in its structure elements and conditions that anticipated human sin, as a new community may build schools and hospitals and prisons before there is any call for them, foreseeing that such means of education and healing and punishment will be needed. Every part of the divine plan was necessarily framed as a harmonious part of the whole, and the earlier parts were shaped to fit the later. It

follows that nature was fitted up in anticipation of the coming of man, and this view of it may throw a ray of light on some of its dark aspects. God might have made nature somewhat different if he had fashioned it purely for his own expression and pleasure; but he was framing a larger system which was to include rebellious spirits.

Our conclusion at this point is that there is no real evil in nature, but only what appears to us as strange forms and conditions of good.

II. This leads us to the evil in the human world. The problem grows darker and more difficult in this field, for its evil is frightful. The whole face of society is seamed and scarred with every line and feature of evil, and the human heart is a scene of warring passions, pain and pathos, tragedy and tears. Poverty and pestilence, disease and suffering and death, strife and war, vice and crime, — manifold are the fires and furies that kindle a hell on earth. How can we view this scene and hold our faith in a good God? How does idealism construe human evil in its world-plan?

(1) Some things that may appear to us evil, are not evil, but, as we found in nature, are only surprising shapes of good. The general fact that human life is placed under the necessity of labor and must grapple with difficulties and dangers is not evil, but a fundamental good. The age-long battle with nature has been the education of the human race. Man has had to wrest his bread from refractory soil, and he has made it blossom and bear rich grains and fruits. He has had to fight with fire and

flood, with the ruthless sea, with unseen assassins that fill the very air, and out of this contest have grown his inventions and triumphs. Fire and flood have been captured and trained into his nimble servants, the barrier of the stormy sea has been smoothed out into a great highway of travel and trade, malignant microbes have had their fangs extracted, and on the stairway of his own achievements man is mounting to mastery. It is thus that life advances and men are made. A bird might think that it could fly more lightly and swiftly if there were no air to resist its wings, and we may entertain notions as mistaken and foolish.

The inequalities of the human world are not an evil as a general fact. It is true that they often present frightful aspects, and in particular instances are grievous social wrongs, but in general they are the necessary outgrowth of differing human abilities, and conduce to human welfare. It would not be best that all brains should have the same capacity and quality, and out of these varying powers and possessions grow the infinite variety and richness of our human world. Poverty is often bitter bread, but it is food that has nourished giants. Rarely have the great men of the world been cradled in luxury, but mostly they have been bred in hardship. If we were constructing or reconstructing the world, we would be tempted to leave out these hard conditions and upholster it in universal ease and comfort, but we would thereby relax and lower manhood and work infinite harm.

Poor vaunt of life indeed,
Were men but formed to feed
On joy, to solely seek and find the feast;
Such feasting ended, then
As sure an end to men.

(2) Looking deeper into our problem, we see that good often grows out of positive evil. Disease and suffering must be viewed as evil in themselves, and yet in many ways they work good. Pain is a warning to protect life. The body must have food and drink, and hunger and thirst are its cry for them. When the hand or any part of the body touches fire, the burning pain is the telegraphic message sent up to the brain, saying, I am in the fire: take me out. An ache or a pain anywhere in the body is the symptom of disorder or disease. The throbbing head and rheumatic pang or fever's fire are nature calling upon us to remove the root of the pain from the disordered system. Trembling nerves and sleepless nights are a protest against too much work and worry. Pain is thus the sentinel that stands at every pore of the body, the track-walker that watches every fiber of muscle and nerve, the red light nature swings across our track to warn us there is danger ahead. Physical pains, then, are not demons sent to torture us, but rather angels to warn and guide us.

Pains are also penalties. Vice sows seeds that spring up in a fiery harvest. Bleared eyes and pimpled face and rotten tissues and delirium tremens are nature's cry and scream under outrageous treatment and the penalty

she inflicts for such a course of conduct. Our social wrongs, our selfishness and strife, unfaithfulness to one another in the fine relations of life, our envy and hatred, inflict upon us the penalties of unrest and unhappiness and often of ruined lives and broken hearts. We cannot complain against such pains as are righteous retribution, and we could not annul or escape them without working deeper harm.

Pain has still higher use as a means of discipline. It may penetrate to the deepest fountains of our affectional nature and unloose sympathy and love. Never does the tide of affection flow through a home so deep and strong and tender as when a loved one lies upon a bed of suffering. Pain softens asperities, smooths away prejudice and ill feeling, and draws dissevered minds and hearts into harmony. Sorrow touches a community into sympathy, and may bind a nation or the whole world into mystic unity. It is a discipline in patience and self-control, calmness and power. Rightly received, it deepens and enriches the whole nature. Suffering and sorrow appear to be necessary to the growth of great souls. Souls nurtured in ease and comfort are soft-fibered and flabby, and they grow into strength and nobility only as they are beaten upon by storms. Even the highest art springs out of the soil of suffering. "If I could make you suffer for two years," said an eminent teacher to a noted singer, "you would be the greatest contralto in Europe." "They learn in suffering what they teach in song." As the pearl is the product of the

suffering of the shellfish, so are many of the finest gems of human character the product of pain. Even the Saviour of the world was a "Man of Sorrows," and was "made perfect through suffering."

Temptation, too, has its place in the development of the soul in righteousness. There is no wrong in being tempted, but by resisting the wrong the soul chooses and fixes and deepens its decision for the right. The sins of others may thus become the means of our saintship; their vices promote our virtues. This does not excuse them, but it helps us. "Ye thought evil against me, but God meant it unto good." This principle throws a broad light over the moral evil of the world. Wrong as it is in itself, it may yet be the condition of our growth in holiness; it is by fighting against it that we develop righteousness and win the crown of victory. The world, through battling with and conquering its own evils, is ever rising on its dead self to higher things.

Religious faith has ever rooted itself deep in the soil of suffering and sorrow. The pains and penalties, evils and mysteries of the world, so far from destroying or benumbing faith, have aroused it into masterful strength and inspired it with that sublime submission in which it exclaims, "Though He slay me, yet will I trust Him." It is when weighted most heavily with the burdens and woes of life that the soul falls "upon the great world's altar stairs," and is sure they "slope thro' darkness up to God."

And thus evil, however wrong in itself, is yet a soil out of which some of the finest flowers of good may grow. There is a soul of good in things evil. "In this world," says Richard Rothe, "all Good, even the fairest and noblest, — as Love, — rests upon a 'dark ground,' which it has to consume with pain and convert into pure spirit." We should then hesitate to reconstruct the world along lines of universal ease and happiness lest in removing apparently evil conditions, we eliminate conditions and forms of good, pulling up the wheat with the tares. "However easy," says Martineau, "it may be to picture to ourselves a world clear of this or that imputed blemish, we constantly find, when we attempt, by reasoning out the conditions, to make provision for its departure, that it is inseparably interwoven with the pattern of the whole, nay, that if its threads were withdrawn, some of the most delicate lines and finest colors of the tissue would unexpectedly disappear." Let the world be as bad as it may, the fact remains that out of it there do grow good men.

(3) At this point we encounter the theory that evil is the necessary condition of good. Friedrich Paulsen states this view as follows: "We have the same relation here as between light and darkness. The painter cannot paint without employing shadows; his aim, however, is not to paint shadows, but lights and colors. So, too, the poet cannot paint without shadows; he needs the ugly, the vulgar, and the base. It is not his purpose, however, to portray these, but the beautiful, the good,

and the grand, and in order to bring them out more clearly he places the base side by side of the good, to confound the evil and exalt the good. So, too, the good exists in history and in life for its own sake, and evil for the sake of the good, as a stimulus, as an obstacle, as a foil. It is a negative quantity, valueless as such; it receives a kind of power and reality only through its opposite, the good. But its power does not benefit it, for it is characteristic of evil that it has no constructive force, because it is divided against itself. It has, as Kant once said, 'the quality, inseparable from its nature, of being opposed to itself and self-destructive.' This is also shown by the fact that there is no positive anti-morality; immorality is, like error, without law. All truth forms a unified system, but there is no system of errors. There is no mark, says Epictetus, for the misses."[1]

This is a favorite thought with the poets:—

There shall never be one lost good! What was, shall live as before;
The evil is null, is naught, is silence implying sound;
What was good shall be good, with, for evil, so much good more;
On earth the broken arcs; in heaven a perfect round.

— BROWNING.

Oh, yet we trust that somehow good
Will be the final goal of ill,
To pangs of nature, sins of will,
Defects of doubt, and taints of blood;

That nothing walks with aimless feet;
That not one life shall be destroyed,

[1] "A System of Ethics," p. 328.

Or cast as rubbish to the void,
When God hath made the pile complete.

— TENNYSON.

All nature is but art, unknown to thee;
All chance, direction, which thou canst not see;
All discord, harmony not understood;
All partial evil, universal good;
And, spite of pride, in erring reason's spite,
One truth is clear, Whatever is, is right.

— POPE.

Evil thus clings to our finite constitution as a necessary condition of our good: only God is free from this condition, and in him alone is perfection. There is a fascination in this view and a truth in it, as we have seen. It does explain the hard conditions of growth and struggle through which we must fight our way to development and mastery; and it helps us to see that even the moral evil of others, when we resist it, works for our good. God also can turn evil to good in ways we cannot see. "Surely the wrath of man shall praise thee: the remainder of wrath shalt thou restrain." Nevertheless, we refuse to let this principle lead us into the moral absurdity that "Whatever is, is right," for then everything is right and nothing is wrong. This lands us in a pantheistic fatalism in which all moral distinctions are obliterated. Such a doctrine is intolerable to our conscience and is contradicted by experience. We revolt against believing that a malicious falsehood "is right," however it may be turned to good in its consequences; a lie is a black spot in the universe which no whitewash

can cover. If the world of human sin and guilt is the reality of tragedy and tears we believe it to be, it cannot be sweetened with the rose water of an easy optimism. Singing, "God's in his heaven — All's right with the world," does not change the hard, stubborn facts of the world. Even Huxley revolted against this view, and thought the old theologians were nearer right because they "recognize the realities of things."

"The doctrines of predestination," he says, "of original sin, of the innate depravity of man and the evil fate of the greater part of the race . . . faulty as they are, appear to me vastly nearer the truth than the 'liberal,' popular illusions that babes are all born good, and that the example of a corrupt society is responsible for their failure to remain so; that it is given to everybody to reach the ethical ideal if he will only try; that all partial evil is universal good, and other optimistic figments, such as that which represents Providence under the guise of a paternal philanthropist, and bids us believe that everything will come right (according to our notions) at last."

It is difficult or impossible for us to draw the line between apparent and real evil, and at this point our problem shades off into the mystery that ever borders it. We can see many ways in which evil does work good, but this does not change the essential nature of moral evil, and does not afford a complete solution of the problem. We must face the hard facts and bear the pain of this mystery at every point, and not fly to an opiate that promises easy but false relief.

(4) Further light is thrown on our problem by the course of history which in its broad current has been the evolution and progress of good in the world. There is an ascending scale of powers in man, rising from the lowest physical appetites and passions, through prudence to conscience, and on up to the highest spiritual faith and aspiration. The lower of these powers are the fiercer and more ruthless, and the higher are the gentler and seem the weaker; and thus it might be expected that the lower would overmaster the higher, sweep everything before them, and submerge the spirit in the flesh. Yet in the long run the reverse of this process is realized. Cool, calculating prudence checks and tames passion; conscience, with its higher sense of right, masters prudence, and faith transfigures conscience. The gentler higher powers exert a steady pressure on the lower that rationalizes and then moralizes and finally spiritualizes them.

This process is illustrated in the growth of the individual, from the appetite and passion of the babe and child through the stage of prudence to the higher attainments of moralized manhood and spiritualized sainthood. But the individual is an epitome of the race, passing quickly through the stages which the race passed through slowly, gaining in a few years what has cost the race millenniums. The curtain of history rises on a scene of appetite and passion in which war constantly rends the social fabric and saturates the earth with blood. Slowly this chaos passes into more prudential arrangements in which the

slaughter of captives gives way to more useful and more humane slavery, and tribal conquests and combinations grow into nations and empires. Conscience then asserts its claims with ever increasing urgency, and right contends with might. Great combinations of power, such as the Roman Empire, retain their ascendancy only so long as they broadly represent right: when they grow corrupt, they decline and fall. Finally, the higher elements of spiritual life, faith and faithfulness, righteousness and reverence, goodness and gentleness, mercy and meekness, sympathy and sacrifice, assert their power and become dominant in individual and social and national life. The Roman Empire falls, but a Kingdom not of this world undermines it and silently extends its ramifications over the globe. "The meek shall inherit the earth."

Thus the course of history is the gradual supercession of the lower by the higher powers of man. Ideas conquer bayonets, and faith molds ideas. Might gives way to right, and prudence to piety. Of course there are eddies in this stream, but the main current flows in this channel. A glance at the world to-day compared with its condition five thousand or two thousand years ago shows how far it has moved in this direction. There is yet immense room for progress, and the millennium is far in the future, but enough has been attained to show that "through the ages one increasing purpose runs," and to beget the hope that the final issue will be the victory of the right and good. Evil is diminishing and

good is increasing in the world, and this fact eases the pressure of this problem on our minds.

(5) The struggle of the lower to dominate the higher stages of the evolution of the world furnishes one theory and ground of evil that contains a truth. From ether to atom, and on up through molecule and crystal and vegetable and animal to man, evolution climbs on its way, steadily rising from lower mechanical energies and laws up through sensation, instinct, and spontaneity to self-consciousness, freedom, and responsibility in man. But as each higher stage emerges out of the lower, the lower tends to cling to the higher and to fetter it and drag it down. The mechanical laws of the ether and atom tend to block the growth of the crystal and may thwart and deform it. The crystal may bind the vegetable, and the vegetable the animal. We see the same principle illustrated more clearly at the upper end of the scale. The instincts, impulses, and passions of the animal may survive in man and at times terribly burden and bind him in a lower bondage. The flesh wars against the spirit. This animal nature is good in its place, and becomes evil only when it is permitted to mount into mastery. Civilization passes through the same stages, old institutions, such as slavery and polygamy, that may have been socially useful and humane in one age, surviving in the next as a cruel wrong. There is a large element of relativity in right and wrong, and what is right in one age may be wrong in the next. Thus evil is the dominance of lower over higher stages of develop-

ment, the survival of what was once good but has become bad.

A striking illustration of this form of evil is seen in the experience of the Apostle Paul. "I know," he says, "that in me, that is, in my flesh, dwelleth no good thing: for to will is present with me, but to do that which is good is not. For the good which I would I do not: but the evil which I would not, that I practise. But if what I would not, that I do, it is no more I that do it, but sin which dwelleth in me. I find then the law, that, to me who would do good, evil is present. For I delight in the law of God after the inward man: but I see a different law in my members, warring against the law of my mind, and bringing me into captivity under the law of sin which is in my members. O wretched man that I am! who shall deliver me out of the body of this death?" The old nature was a survival in Paul, and involved him in this terrible internal war.

This principle is an aspect of the law of heredity. Heredity is an immense good within proper limits, but when it passes these limits and carries an outworn element or law beyond its own stage and lingers as a burdensome or antagonistic survival, it becomes evil. It is the function and duty of the higher life to suppress the usurping lower life and drive it back into its proper place, and when the higher life fails to do this, it falls into evil or sin. This principle does not give us a complete theory of evil, but it discloses one fruitful source of it and throws some light on its nature. Evil is

rebellion of the lower nature against the higher which the higher fails to put down.

(6) The taproot of our problem is the presence and power of sin in the world. However he came into this condition, man is in a state of disharmony and rebellion against his own sense of right and his own civil and social laws; and this disobedience transgresses what he knows or believes are the commands and laws of God. Growing out of this perverted state of heart and will arise the individual sins and social wrongs and the vice and crime that are the great burden of evil in the world and the cause of so much of its sufferings and tears. These states and acts of human sin must reap their retribution, and hence the fiery harvest of penalties and pains that spring up in individual and social life. These are the necessary outgrowth of sin, and could not be remitted without disorganizing the world. Man must pay the price of being a responsible creature in bearing these penalties as the consequence of his misdeeds. Without such retribution the world would not be morally respectable and would not be a moral world. However hard and at times frightful these penalties may appear, they are really good in their ultimate results and are a beneficent provision in the constitution of the world.

It may be objected, however, that a grave injustice has been incorporated in these penalties in that they are made hereditary, the evil that men do flowing down in a corrupt stream into the lives and the very nature of their descendants. This fact grows out of the social

constitution of men by which they are welded and fused into solidarity. Its effect is to increase enormously the responsibilty of each individual in that his acts and states affect not only himself but also his offspring. But while this hereditary current does carry the consequences of personal evil down the stream, it also sets afloat on the same stream a precious cargo of good, which becomes the opulent inheritance of descendants. And still further, while the heredity of evil is limited to "the third and fourth generation," cutting its course short by its own wickedness, the heredity of good is unlimited, and extends to "a thousand generations," thus accumulating an ever increasing store of good in the world. The hereditary tie is a beneficent bond to bind the generations together, but its advantages may be perverted by human unfaithfulness into a corresponding disadvantage. Yet no man is ever so blighted and bound in evil by heredity that he does not have some freedom and responsibility in determining his own character and destiny.

(7) At this point we are met with the great question, Why did God permit evil in this world at all? Why was not human sin, with all its penalties and evils, shut out of the world so that humanity would unfold into perfectly pure beings, forming a harmonious and happy brotherhood? The proposal may look easy at first sight, and has strongly appealed to many minds. But it involves a contradiction: it asks for human free agency without the possibility of its choosing evil; for person-

ality without responsibility. Such a world appears not to be possible in the nature of things. Personality is a fusion of intelligence, sensibility, and will into a self-governing and responsible self. The power of free choice enters into the essential constitution of such a self, and could not be taken away without fatally impairing and destroying it. Any prohibition or device that would prevent a moral agent from choosing evil would equally prevent him from choosing good or making any choice at all; that is, it would cancel the will and destroy responsibility. A system of restraints in a bank that would debar the employees from being dishonest would equally debar them from being honest; it would simply reduce them, so far as their bank operations were concerned, to machines without any moral character and power. So any system that would exclude evil from the world would equally exclude good and limit the world to the level of vegetable and animal life. God cannot work a contradiction; he cannot make a finite part equal to the whole, or parallel lines meet, or a curved line as short as a straight line between two points. So he could not produce personalities having the power of choice, and yet not having the power of choosing evil; for the conception is a contradiction in terms. God could exclude moral evil from the world only by also excluding moral good and thereby creating a non-moral world.

Evil is thus the obverse side of good, the shadow that follows the light. The possibility of evil is the price we

must pay, and that God must pay, for the possibility of good. But the prize is worth the price. A moral world shadowed with evil is better than a non-moral world. Better that we stand wearing the crown of responsibility, though at times it pierce us with thorns, than drop the crown and sink to the level of a beast.

> Rejoice we are allied
> To that which doth provide
> And not partake, effect and not receive!
> A spark disturbs our clod;
> Nearer we hold of God
> Who gives, than of his tribes that take, I must believe.

This rolls the responsibility for human sin off God upon man. "God made man upright; but they have sought out many inventions." Man has at many points refused the good and chosen the evil, and so has brought upon his world all this weight of woe. Yet it was better in God's sight that man should have the sovereign power of choosing good and evil than that there should be no moral world. The world as it lies in evil is yet a good world in God's sight, or he would never have called it into existence. He has the power of restraining evil within tolerable limits, — he can at least cut off evildoers from the earth, — and thus can keep evil from overbalancing the good and throwing the world into moral chaos. Notwithstanding the dark shadows that human wrongdoing casts upon it, God sees that the general picture of the world is worthily significant and good.

(8) What is God's own attitude towards the evil of

the world? Is he indifferent towards it, or is he struggling with it to conquer it and bring it into subjection to and harmony with himself? Many indications point to his coöperation with good against evil. Every man has in his own conscience a witness that his Maker is on the side of right and against wrong. The human soul, bearing the image of God, feels itself obliged to struggle for good and against evil, and thereby reflects the infinite life of God. The rewards and retribution woven into the whole texture of this world point to a just and good God who loves righteousness and hates iniquity. The course of history, as it rolls forward out of old evils into "sweeter manners, purer laws," is proof that the Providence that rules over it is good. The religions of the world are all based on the faith that God is just and good, and the supreme religion shows us God incarnated in his Son, whose Cross is the utmost expression of God's sacrificial love for men.

> I say, the acknowledgment of God in Christ
> Accepted by thy reason, solves for thee
> All questions in the earth and out of it,
> And has so far advanced thee to be wise.

The infinite Spirit of God is thus exerting a steady impact and pressure on the souls of men to inspire them to resist and overcome evil and choose and attain the good. All the agencies and activities of good in the world are under the guidance and stimulation of his presense and power. He is no indifferent spectator of this evil world, but is on its battlefield as the great Com-

mander and Leader of Righteousness, and is himself engaged in a mighty grapple with the hosts of wickedness. While he must respect the sovereign free agency and responsibility of his moral creatures, yet he brings to bear upon them all his resources of influence and persuasion, punishment and love, to conquer their evil, win them to his fellowship, and transform them into his likeness. His ultimate aim is a kingdom of universal righteousness and love, in which all enmity shall be put down and He shall be Lord of all.

History's pages but record
One death-grapple in the darkness 'twixt old systems and the Word.
Truth forever on the scaffold, wrong forever on the throne:
Yet that scaffold sways the future, and behind the dim unknown,
Standeth God within the shadow, keeping watch above his own.

(9) But this world is not complete in itself, and is only part of a larger world. The present is always running into the future for its further development, completion, and final vindication; it is always a fragment that implies the whole, a seed growing towards its fruit. The world is rolling forward into an eternal future, and its rudimentary stage and dark aspects wait for larger development and fuller light. We cannot follow the battle into that unseen realm. But as its tides are rising towards victory in this world, we can well believe that they will there sweep on to ultimate triumph. The unjust inequalities and rewards of this world will there be leveled up and redressed, and its partial rewards and

retributions be perfected. The Father will not have fulfilled the desire of his heart until he has put all things in subjection under his feet and is God over all, blessed forever.

Our examination of this world-old problem has not led us to any complete solution. Such solution is beyond human ken. The generations have come and gone and gazed at this Sphinx and questioned it, and still it stares at us with stony face and unopened lips. But we have gained some points of view that may help us to understand it better, or at least to bear it more patiently and hopefully.

The final word on this subject is faith. When we look upon the vast canvas of the universe, we can see only infinitesimal portions of it, and these are deeply darkened with shadows. Our hearts grow faint at the apparently dreadful vision, and we would fain call upon God to sweep the shadows away and flood the scene with golden light. But the Infinite Artist, seeing the whole picture in time and in eternity, lets the shadows lie upon it and pronounces everything beautiful in its time. And we must bow before his judgment as being true and righteous altogether. Only thus can we acquire and rest and rejoice in

> that blessed mood,
> In which the burthen of mystery,
> In which the heavy and the weary weight
> Of all this unintelligible world,
> Is lightened.

4. Idealism and Religion

Philosophy must furnish the necessary foundation for religion and theology. It gives shape and strength to religion and breathes into it vitality and warmth, or it cuts off its roots and devitalizes and stifles it. The soundest basis and most genial atmosphere for religion are found in idealism. It finds its home and breathes its native air in a world that is a spiritual system.

(1) The basal foundations of religion are affinity, dependence and fellowship of human spirits in their relation to the Father of Spirits; and these are laid down in the world as a spiritual organism. The human spirit is of the same fundamental nature or stuff as the divine Spirit, derives its being from it and is dependent upon it at every point. The way is thus open between God and man for "spirit with spirit to speak," and all the capacities of the human soul are so many needs and yearnings for fellowship with the Father. This mutual fellowship is made intimate through the reciprocal immanence of the divine and the human. God holds all souls in himself so that he is in them and they are in him, and this makes them sensitive to his presence and quick to catch the accent of his voice and the breathing of his Spirit. In such a spiritual system prayer is as natural and necessary as communication between father and children, or between friend and friend; and inspiration is as natural as the quickening touch which one mind can give to another. God is not far off, but nigh us, even

in our heart; and this idealistic fact is the foundation of all religion.

The purely dynamic theory of the world views it as a fire, burning to an ash-heap, in which spirit is only a fine flame; as a machine, running down never to go again, in which consciousness is only a cog. This view makes short work, not only with theology, but also with ethics, psychology, and history, by reducing them to physics, and raises over the entire universe the dread spectre of fatalism and final extinction. A sure escape from this fire and ash-heap is the view that sees the world as a spiritual system in which energy is will, substance is soul, ultimate reality is personality, and God is all in all.

(2) We cannot go far in religion without encountering the supernatural. Almost all worthy religion in the world has or claims supernatural elements in its origin and operation, and this fact shows that such elements go down to its roots and are among its constituent fibers. Idealism furnishes the best soil for this element. Dualism is especially embarrassed at this point, and much of the difficulty in connection with the supernatural in religion, breeding doubt and skepticism, has been due to a mechanical dualistic philosophy. According to dualism, the world of matter and nature lies external to God and man as a huge mass or machine that goes on under laws which, although originally impressed upon it by God, are self-operative and invariable. This virtually separates God from his world, so that the only

way he can adapt it to special purposes is to thrust his hand into it and violently arrest or divert its action. A miracle thus becomes "a violation of the laws of nature." It was such a view of the world that enabled Hume to deliver a telling blow against miracles, a blow and wound from which this mechanical view of the supernatural has not recovered to this day. Hume said that such an event as a violation of the laws of nature was so unnatural and improbable that no amount of human testimony could overthrow the presumption against it; and on the dualistic view of the world this argument still has force.

But idealism has cut the ground from under Hume's argument. When we view the world as a spiritual system, nature vanishes as an external machine with fixed laws, and becomes the internal constitution and operation of God's own life. God holds the world in solution in himself, and all its elements and activities are but the working of his thought and feeling and will. "Natural law in the spiritual world" expresses a relation just the reverse of the truth: "Spiritual law in the natural world" is the true relation. The laws of nature, that seem so fixed and unalterable to us, are only God's mental habits, or ordinary ways of working. But he can change a habit and adapt it to a special purpose. Even we can adapt our habitual action to unusual circumstances without violating any law of nature or of our own world; and what we can do, often imperfectly, God can do with infinite ease and perfection. The Creator has not tied himself up to or exhausted himself in his creation. He

is yet free to do anything he may please to do, and all his infinite resources are still at his bidding. There are yet in him inexhaustible possibilities, which will pour forth from him through all eternity.

Now what we call a miracle is simply a special act of God for a special purpose. The same wisdom and will that ordinarily work in the grooves of divine habit for a moment move in an unaccustomed path in order to reach an unaccustomed end. But no law of his being has been violated; he has only put forth an extraordinary activity for an extraordinary purpose, and what is supernatural to us is still natural to him. Even we can work miracles, in a degree, for this is what we do when we vary a habitual course of action so as to divert or adapt it to a special need. A man might walk every business day of the year from his house to his office along a certain street at a certain hour until this habit would seem to an onlooker as a fixed law of his life. Yet some morning, in order to meet a special emergency, such as visiting a sick friend, he might go round by another street or at another hour, and such unusual action would seem to the onlooker as a violation of the law of his life, and might be considered as a wonder or miracle. The business man, however, would by such action be violating no law, but would only be adapting his habit to a special purpose. So God ordinarily fulfills his purposes in his ordinary ways, or what we call the laws of nature; but when an extraordinary need arises in his plan, he varies his action to meet it; and in such variation he is violating no law of

his world, but is only suiting his action to a special end. This principle affords natural and easy and abundant room for answer to prayer, providence, revelation and inspiration, incarnation and resurrection, and for all such special acts as God may see fit to employ in his communication with and ministry to his human children.

(3) Christianity is based upon the spiritual order of the world. The Bible is saturated with idealism. It does not view the world as a lumpish, dead mass projected out of God and lying between him and us, but views it as the immediate presence and power of God. "By the word of the Lord were the heavens made, and all the host of them by the breath of his mouth": that is, by the utterance of his thought and will expressing itself in a deed. He said, "Let there be light, and there was light." "He spake, and it was done: he commanded, and it stood fast": with him thought and deed were one. The Hebrew thinkers and poets saw God's immediate presence in nature. The heavens declare his glory, and fire and hail, snow and vapor and stormy wind fulfill his word. There is no escaping his presence, and though we were to take the wings of the morning and dwell in the uttermost parts of the sea, even there shall his hand hold us. The world is thus viewed as the manifestation of his thought and as a spiritual order. The Bible is an Oriental book, and thinks and speaks the language of idealism. The Orient is the home of such modes of thought and systems

of philosophy, and its greatest Book is the highest and finest product of idealistic faith and worship.

The fundamental doctrines of Christianity are idealistic. God himself is a pure Spirit, and this is the foundation fact of the world as a spiritual system. Human beings are also spirits, the offspring of God, and this fact fills out the idealistic scheme. The reciprocal immanence of God and man is set forth in Scripture. Christ gave the very formula of such mutual immanence in saying, "As thou art in me, and I in thee, that they also may be in us." "Abide in me, and I in you." Paul elaborated the doctrine that Christ is in Christians, and Christians in Christ; and he summed up the whole system of idealism in his profound saying, "In him we live, and move, and have our being."

The process of salvation through the Incarnation and Atonement is especially illuminated by an idealistic interpretation. The Incarnation is a special exhibition of the supernatural, or a further and fuller manifestation of the divine nature. God incarnates himself, as we have seen, in successive degrees, from the lowest point on the scale of material forms up to man. The ether is the deepest and most primal level of the divine manifestation we can reach, the germ of being to which God has imparted the least degree of inner life. From this lowest level evolution passes through atom, molecule, crystal, vegetable, and animal up to full-blown consciousness, freedom, and responsibility in man, the point where the process passes into personality and the human

soul becomes psychologically distinct from God. At each of these successive higher stages God breathes in more of his life, and thus he differentiates or incarnates himself in this vast unfolding series, reaching from ether to man; and yet in and through this process he keeps his own personality distinct at every point.

This scheme logically supplies a place for a further step and higher manifestation. Man has attained the image of God, but is yet an imperfect image: why not one step more, reaching the summit and undimmed splendor of the divine in the form of the human? This supreme summit has been attained in Christ, who is the full revelation of God, "the brightness of his glory and the express image of his person." God, having incarnated himself in successive stages from the lowest mechanical energy in ether up to full spiritual life in man, at last took upon himself human flesh and spirit, or manifested himself in his own Person under this form. Then a new hour struck in the history of his world and of our world. As a critical point was reached and passed when the lower evolution culminated in man, so a still higher critical point was reached when Christ appeared as the Son of Man and Son of God. The Incarnation was thus an outburst of the life of God, filling the human world with his glory, as the heavens are lighted up when a new star blazes into being, or as the morning dawns with the rising sun.

Reverting to our illustration in which the infinite series infolds the contained series (page 207), we see

that Christ in his human nature is one of the contained series, and by virtue of this relation he touches man at every point; and in his divine nature he also, at every point, touches God. He is, in fact, in himself a double series, Son of Man and Son of God, so that on the one side he is identical in nature with man, and on the other identical with God. This fact constitutes him the Mediator between God and man. Sin has disrupted the moral and spiritual union and fellowship of man with God, and thus driven a cleft into our world and turned its harmony into infinite tragedy. Only a mediator who is identified with both of the disrupted series can grasp their sundered threads and reknit them together. Christ, whose double nature is woven of both human and divine threads, is the Mediator who can lace and heal this wound. As the Son of Man he is the Teacher who is the Light of the world, whom men can follow and not walk in darkness, and the perfect Pattern after whom they can rebuild their shattered lives.

But it is as the supreme Sacrifice that Christ does his deepest work in redemption. The principle of vicarious sacrifice, that runs as a scarlet thread through the whole web of the universe, is dipped in its deepest dye in the blood of his Cross, and there becomes the Sacrifice that taketh away the sin of the world. By virtue of his union with and immanence in sinful humanity, he is so identified with it as to be implicated in and, in a sense, responsible for its guilt, and bears and atones for it in his infinite grief and suffering; and

by virtue of his union with and immanence in God he experiences and expresses the Father's sorrow over human sin. His Cross, ineffably deep and mysterious to us, is thus an atonement that draws together the sundered lives of God and man and binds and seals them in eternal fellowship.

(4) Christian theology in the hands of the early Fathers, such as Augustine, and of many of its greatest theologians, such as John Calvin and Jonathan Edwards, was based on idealistic philosophy. But in modern times it has drifted away from this foundation and out of its native air to a dualistic basis and into an uncongenial atmosphere that have involved it in grave difficulties. By thrusting an opaque world between God and man it has, in a measure, screened God off from us and made him seem remote and inaccessible, whereas the Bible and the old theologians bring God near and make him vital and warm to us, our very breath and life. Theology is necessarily conservative, but it is now responding to the great idealistic movement that set in with Descartes and Kant and is being quickened in this more genial air. Skepticism, that found such a vulnerable part in the dualism that had been incorporated in theology, is being met with a more solid front and matched with keener weapons. All the doctrines of Christian theology are being restated in the light of monistic philosophy, and they are more deeply and rationally grounded, cohere in a stronger system, and are enhanced in power as integral parts of the spiritual world-

order.[1] Our whole modern thinking is being permeated and molded by the idea of the divine immanence, and this is the root of idealism.

5. Idealism and Life

"By their fruits ye shall know them": to this test must all theories of being and life, God and man, come. Philosophy cannot hide in a secret chamber of speculation, but must come out into the open and be seen and known of men. No one can hold his philosophy in an isolated cell in his brain or heart, for it will ramify and pervade his whole life. How does idealism affect our practical thoughts and deeds? What fruits grow out of this soil?

It must be confessed that in its impersonal and pantheistic forms its fruits are not good. The idealism of India obliterates personality and all moral distinctions, and merges the soul in the universal sea of unconscious fate. Such a philosophy is destructive of the worth of the soul and cheapens life, brands consciousness as a curse which is to be steeped in oblivion as soon as possible and by

[1] Many of the leading theologians in America and Europe are now idealistic in their underlying philosophy. A notable instance of this is President Augustus H. Strong's "Systematic Theology," recently completed in three volumes. In his volume entitled "Christ in Creation and Ethical Monism," page 47, President Strong says: "I believe that the tendency towards monism in physical and metaphysical science, in biology and psychology, in literature and theology, shows that the monistic theory meets a great want of our time. . . . Prolonged examination of the Bible leads me to believe that monism is itself the Scripture doctrine, implicitly if not explicitly taught, not only by John but by Paul, and I therefore provisionally accept it."

any means, turns religion into "organized weariness," and tends to sink character and conduct in sensuality. But the personal monism which is the philosophy of the Occident stands at the opposite pole from the impersonal monism of the Orient and bears different fruit. Its corner stone is personality, which is the essential constitution of spirit, the universal and only reality. It thus puts supreme emphasis on the personality of God and of man and raises the whole universe to this high level. The world is a social organism of persons in which God is the original and central Self, and other beings are derived and dependent selves.

Idealism tends to promote the highest ideals and attainments. Its doctrine of the soul as reality in itself emphasizes its supreme worth. The human spirit is one of the realities of this world, and not a phenomenal appearance or subjective dream; and the same reality assures to it permanent worth and crowns it with immortality. The emphasis idealism puts on personality also enhances the worth and power of the soul. The idealistic view of the will as the creative energy of the soul working in a world of spirit akin to itself is of great value in the field of character and conduct. It erects the soul into a kingdom armed with sovereign power to maintain itself and extend its borders. It sets it in a spiritual world which is more or less pliant and plastic to its touch. No barriers of foreign and inflexible material environ and bind it, but it moves in a world of spirit which is its homeland and in which it has freedom and

power. In a measure it creates the ideas and ideals which are its objects, and re-creates and projects the world in which it lives. The human soul thus in a large degree plans and builds its subjective life and masters and molds its objective world. This enormously increases its responsibility and spurs it on to the highest ends. Its greatest achievement is building its own character into a system of permanent ideals and habits constructed of truth and trust, righteousness and reverence, honesty and honor, purity and patience and peace, goodness and gentleness and love, kindness and courtesy, sympathy and service and sacrifice, prayer and aspiration and obedience. These are the highest attainments and noblest victories of life, the jewels that outshine all external crowns and kingdoms, compared with which mere wealth and fashion and worldly power are only tinsel baubles.

Idealism also turns the world into a social organism or brotherhood of spirits in which all inherit family rights and privileges. But this world-family has been ruptured and scattered by human evil, and now lies in more or less discordant and warring fragments. The social organism is sown with strife and stained with blood. Idealism teaches every man to see a soul of the same ultimate reality as his own in every other man, to accord him the same rights and to serve him in sympathy and love. It works out into all the social sciences, such as economics, politics, sociology, ethics, and religion. It dreams of building all the dissevered members of humanity into a grand brotherhood which will be the

Kingdom of God on earth; and this is its ultimate goal in this world and its strenuous endeavor.

In a final word, idealism tends to lift all life into the spiritual and divine. It turns the whole universe into spirit, alive with the immanence of God, everywhere aflame with his presence and manifesting his thought and feeling and will. "Earth's crammed with heaven, and every common bush afire with God." From this point of view we see the world saturated with God and we breathe his breath. Land and sea and sky are just his thoughts spread out before us, the beauty that everywhere paints and soaks through the world is his rich emotion, and all its energies are his will in action. The laws of the world are the laws of God's own life streaming through us and knitting us up into the same organism or bundle of life with himself. When we touch the world we touch God, and when the world touches us, we are touched by God's own hand. There is no escaping his presence, for we are environed in him and immersed in his life. We may say with Wordsworth, the idealistic poet of nature: —

> And I have felt
> A presence that disturbs me with the joy
> Of elevated thoughts; a sense sublime
> Of something far more deeply interfused,
> Whose dwelling is the light of setting suns,
> And the round ocean and the living air,
> And the blue sky, and in the mind of man:
> A motion and a spirit, that impels
> All thinking things, all objects of all thought,
> And rolls through all things.

This presence is not a fateful Power, ominous and sinister, but may be discerned as a kindly Face, a Father's care and love.

In proportion as we realize this divine immanence shall we see the world ablaze with God and be able to live in the light of his face. We shall then know that all things are the expressions of his wisdom and will and are working together for our good. Our life will merge in his life in fellowship and obedience, love and joy. The flesh will melt into the spirit, and we shall live in the spirit. The world will dissolve into the splendor of God, and in his light we shall see light.

APPENDIX

A BRIEF COURSE OF SUGGESTED READING

THE following brief course of reading is suggested for those who may wish further to pursue the general subject of metaphysics, especially along idealistic lines. Only a few of the more important books can be mentioned and their nature indicated.

1. Of the many general histories of philosophy, one of the best for unprofessional readers is "The Persistent Problems of Philosophy," by Miss Mary Whiton Calkins, Professor of Philosophy in Wellesley College (New York: The Macmillan Company. $2.50). It covers the whole field of modern philosophy, beginning with Descartes, clearly classifies the various systems, and gives a sketch of each leading philosopher, with an account and a criticism of his system. It abounds in brief, aptly chosen quotations that let these thinkers speak for themselves. The book is remarkably clear in thought and style, and makes philosophy about as easy and attractive as its nature will allow. Although it is written from an idealistic point of view, yet it is impartial in its presentation of all systems. It is an admirable introduction to the general field of metaphysics, and will

prepare the reader for a more detailed study of the subject.

2. One of the foundation books of modern idealism is "The Principles of Human Knowledge," by Bishop George Berkeley (1685–1753), of which a good edition is that edited by Professor Charles P. Krauth, with extensive and valuable notes. He first clearly enunciated the fundamental principle of idealism and wrought it out into a system, although in an elementary and crude form. His brief book is singularly clear and easy reading, and the unprofessional reader will have little difficulty in following his course of reasoning.

3. Any one wishing to go to the roots of modern metaphysics will need to get some acquaintance with Immanuel Kant (1724–1804), although his name has become a traditional terror because of the supposed depth and difficulty of his speculations. There are profound deeps and dense fogs in his writings, but even the general reader can do something with them and will be repaid for the effort. Kant is an idealist in that he holds that space and time and all the "categories" are subjective forms which the mind imposes on its own states. But in his chief work, "The Critique of Pure Reason" (translated by F. Max Müller, The Macmillan Company), he is agnostic as to the nature of ultimate reality because he holds that both mind and matter are phenomena that manifest an unknowable reality, or thing-in-itself, which underlies both; in which fundamental point he was followed by Herbert Spencer. Yet

Kant, in his "Critique of Practical Reason," on the ground of moral necessity, reaches a spiritual ultimate reality in God and the human soul. This divisive cleft in his system is his greatest inconsistency and weakness. Kant is often obscure in his reasoning, and even his disciples find contradictions in him, but he has left his impress on all our thinking, and it is a mental discipline to come into even superficial contact with him. If one does not care to attack his works directly, he can get a good idea of his teaching from Friedrich Paulsen's "Immanuel Kant: His Life and Doctrine" (translated by J. E. Creighton and Albert Lefevre. New York: Charles Scribner's Sons. $2.). Paulsen is an admirable interpreter of Kant, and gives his readers a good idea of the system of the great German thinker.

4. Next after Kant the general reader will do well to take up Schopenhauer's "The World as Will and Idea" (translated by R. B. Haldane and J. Kemp. London: Kegan Paul, Trench, Truber, and Co.). Schopenhauer (1788–1860) had a luminous but erratic mind, which is mirrored in his books. They are ill-balanced and pessimistic, but brilliant and fascinating. He wrote philosophy as literature, and filled it with the many-hued colors of life as he applied it to all aspects and interests of the world. The chief contribution he made to philosophy is his central doctrine that we know the world subjectively as will and idea, and objectively as matter in space and time. He thus made the soul a piece of reality in itself, renouncing Kant's doctrine that we do not know

the ontological soul, but only its phenomenal manifestation. Schopenhauer makes knowledge of the self the corner stone of his system, and this remains as one of the fundamental grounds of modern thinking.

5. The next great thinker to be noted is Hermann Lotze (1817–1881), who wrote voluminously on philosophical subjects, and whose "Metaphysics" is one of the deepest and most difficult of modern philosophical works. But his monumental work is his "Microcosmus" (translated by Miss Elizabeth Hamilton and Miss E. E. Constance Jones, and published in a massive volume of 1464 pages by Charles Scribner's Sons. $6.). This is one of the great philosophical books of the last century, and is a mine from which later metaphysicians have dug much valuable ore. It is divided into nine Books, of which the subjects in their order are: The Body, The Soul, Life, Man, Mind, The Course of Human Life, History, Progress, and The Unity of Things. It will be seen that the work thus covers the whole field of thought, and is a philosophy of the universe. It is idealistic in its principles and conclusions and is a wonderfully rich storehouse of truth and suggestion. Lotze was a poet by nature as well as a philosopher, and many passages in his "Microcosmus" are marked with grandeur and beauty. It takes long and patient plodding to go through this big book, and sometimes the reader wades through obscurities or travels over deserts; but he will also find many garden spots and sublime mountain views, and will be richly repaid.

6. A noted German metaphysician who has only recently died is Friedrich Paulsen (1846–1908), whose work, "An Introduction to Philosophy" (translated by Frank Thilly, New York: Henry Holt and Company. $2.50), is of the first importance to the general reader. This is not a book about philosophy, but it is philosophy. Paulsen works out his own system of thought from foundation to turret in the most thorough and finished manner. His thought and style are transparently lucid, and he is always understandable. He is as readable and interesting as William James, and for a German this is saying much. Paulsen is a thoroughgoing idealist, and if the general reader is limited to one book, this is the one for him to read.

7. Books by living authors are increasingly numerous, as metaphysics is reviving in popular interest and is now having its day. Professor Josiah Royce, of Harvard University, is one of the foremost American metaphysicians, and his "The World and the Individual" (The Macmillan Company, two volumes. $4) is one of the most imposing metaphysical structures yet reared in this country. It is idealism carried to the very verge of pantheism, yet, he maintains, it escapes this pit. It is a strong piece of reasoning, subtle and eloquent. A more popular book is his "The Spirit of Modern Philosophy" (Boston: Houghton, Mifflin Company. $2.50), which treats many of the problems and applications of philosophy from the idealistic point of view.

8. Professor William James, the colleague of Pro-

fessor Royce in Harvard University, has set sail on the sea of metaphysics in "A Pluralistic Universe" (New York: Longmans, Green, and Company. $1.50), an immensely interesting book, as all his writings are. While Professor James differs at many points from Professor Royce, and generally disclaims idealism, yet he arrives at a view of ultimate reality that is idealistic.

9. Professor Borden P. Bowne, of Boston University, is a leading American philosophical thinker and teacher, and his books are marked by brilliant epigrams and flashes of wit. His "Metaphysics" (New York: Harper and Brothers. $1.75) is a formal statement of his views, and his "Personalism" (Boston: Houghton, Mifflin Company. $1.50) is a more popular presentation. He is a thorough idealist, and is one of its most illuminating and convincing advocates.[1]

10. Professor Alexander T. Ormond, of Princeton University, is a solid and sane thinker whose "Concepts of Philosophy" (New York: The Macmillan Company. $4) is a broad and strong working out of idealistic principles, reaching the conclusion that "consciousness is the great reality," "revealing in its activity the truth and significance of the inner nature of things." His "Basal Concepts of Philosophy" (New York: Charles Scribner's Sons. $1.50) is a briefer book which aims to show that "a completely rational idea of being can be achieved only

[1] Professor Bowne died, on April 1, 1910, as this book was passing through the press.

when we . . . translate it into self-conscious personal spirit."

11. A small book of much value is "The Religious Conception of the World," by Professor Arthur Kenyon Rogers, Professor of Philosophy in Butler College (New York: The Macmillan Company. $1.50), in which idealism is applied in concrete explanation of the world.

12. A "System of Metaphysics," by George Stuart Fullerton, Professor of Philosophy in Columbia University (New York: The Macmillan Company. $4), a book far from containing a complete "system," is an able presentation of the principles of dualism.

13. If the reader wishes to bite into a hard piece of metaphysics, let him try his intellectual teeth on "Appearance and Reality," by F. H. Bradley (London: Swan, Sonnenschein, and Company). In the First Book, on Appearance, the universe is resolved into a mass and mist of contradictions, which, in the Second Book, on Reality, the author endeavors, but with small success, to put together again. The work lands one in a Hegelian Absolute, which may be described as "An immense solitary specter — it hath no shape, it hath no sound, it hath no time, it hath no place. It is, it will be, it is never more nor less, nor sad nor glad. It is nothing — and the sands fall down in the hour glass, and the hands sweep around the dial, and men alone live and strive and hate and love and know it." It is a pessimistic book, but one feels that it contains profound thinking, and is repaid for reading it.

While these few representative books are only a small selection out of the vast literature of this subject, yet they will give the reader a general view of and a good grounding in the systems and principles of metaphysics.

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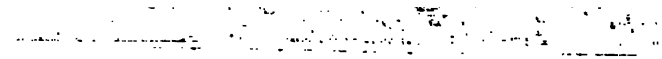

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